





THE
STANDARD
REFERENCE WORK

FOR THE
HOME, SCHOOL, AND LIBRARY

EDUCATOR

VOLUME VII

MINNEAPOLIS AND CHICAGO
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INTRODUCTION

The addition of *THE STANDARD EDUCATOR* to *THE STANDARD REFERENCE WORK* has been made with the idea of increasing its usefulness. For either the teacher or the pupil, or for the independent student in the home, three questions with regard to his material for study confront him: 1. What to study; 2. Where to get the matter; 3. How to use it. Any reputable course of study furnishes the answer to the first query. For the second we would confidently refer you to *THE STANDARD REFERENCE WORK*. It is in the attempt to answer the third question that this appendix has been prepared. The aim has been to unify and correlate the material in each department, and to add such new matter as will make the work as a whole more valuable.

The plan followed begins with the *CHILD IN THE HOME* and considers in a practical and intimate way his physical growth and well-being as well as his mental and moral development. The aim has been to give matter which seems helpful to the mother and to which at the same time the teacher may well give heed. Then is taken up the *KINDERGARTEN*, its mission, method, and result. Following in succession are the various departments of a common school education, prepared by specialists who have endeavored to present the most up-to-date methods with various outlines, type studies, and illustrations, so as to best answer the third question propounded above.

In addition to subjects commonly regarded as the fundamentals of a course of study, space has been given to the sidelights, such as *STORY TELLING*, *PLAYS AND GAMES*, and *PAINTING* and other forms of *ART*. The departments of *LITERATURE* and *ART* will be found to be especially helpful to women in their club work. Physiology in its formal and perfunctory aspects has given way to helps and hints on *SANITATION*, *HYGIENE*, and *HEALTH CULTURE*.

The modern tendency toward the practical and the vocational in our schools finds expression here in somewhat extended sections on *MANUAL TRAINING* and *HOME ECONOMICS*, the latter being particularly suggestive along the line of *THE HOME*, its construction, furnishings, and maintenance; *THE FAMILY*, its care, health, and happiness; *FOOD*, its purchase, preparation, and serving; and *CLOTHING*, its materials, making, and repair. Under *AGRICULTURE* are found outlines on soil, a practical course in agricultural botany, sections on field crops, animal husbandry, the orchard, machinery, farm accounts, etc. The importance of the *RURAL SCHOOL* as a factor in our system of education has seemed to warrant special attention. The laying out of grounds, the plan of the school building, and the method of heating and ventilating should be of moment to the public, while the special problems presented, such as program, alternation of subjects, etc., might well engage the teacher's attention.

Outlines on the fundamentals of business under such heads as contracts, corporations, investments, etc., the relation between employer and employe, between the public and business, between the farmer and his market, and other matter not readily available elsewhere have been embodied in a department of *BUSINESS ECONOMICS*, which it is believed the public generally will appreciate.

Realizing how much more readily facts can often be apprehended through the eye, considerable space has been given to pen sketches, graphics, and charts. Note, for instance, the twelve-page chart covering the essentials of United States history. In none of the departments, however, is the treatment intended to be exhaustive; it is merely suggestive.

The use of this volume in conjunction with the body of the work, to which extensive references are made, will, we believe, justify its preparation.

THE PUBLISHERS.

DEPARTMENTS
OF
THE STANDARD REFERENCE WORK

AERONAUTICS	HYGIENE
AGRICULTURE	INVENTIONS
ANTHROPOLOGY	LANGUAGE
ANTIQUITIES	LITERATURE
ARCHITECTURE	MANUAL TRAINING
ARMY	MATHEMATICS
ART	MECHANIC ARTS
ASTRONOMY	MILITARY
ATHLETICS	MUSIC
BIOGRAPHY	MYTHOLOGY
BOOKS	NATURE STUDY
BOTANY	NAVY
BUSINESS ECONOMICS	PHILOSOPHY
CHEMISTRY	PHYSICAL CULTURE
CHILD STUDY	PHYSICS
CIVIL GOVERNMENT	PHYSIOGRAPHY
DOMESTIC SCIENCE	PHYSIOLOGY
DRAWING	POLITICS
DRUGS AND MEDICINE	PSYCHOLOGY
ECONOMICS	QUOTATIONS
EDUCATION	READING
ENGINEERING	RELIGION
ETHICS	RURAL LIFE
FINANCE	SANITATION
GAMES AND PLAYS	SOCIAL SCIENCE
GEOGRAPHY	STORY TELLING
GEOLOGY	TEACHERS HELPS
GRAMMAR	TRANSPORTATION
HISTORY	WAR
HOME ECONOMICS	WRITING
HORTICULTURE	ZOOLOGY

See Synthetical Index at end of Volume VI.



THE CHILD IN THE HOME

In all the history of art no other subject has been accorded more frequent or more reverential treatment than that of motherhood. The galleries of the old world are filled with Madonnas from the brushes of the old masters, and today a home is scarcely considered complete in its appointments without a copy, however modest, of at least one of these works of art. This fact alone bespeaks the importance of the child's position in the home.

Young mothers of the better class are not satisfied today with the traditional information possessed by their mothers and grandmothers as a preparation for their life work in the home. The prevalence of mothers' clubs and congresses scarcely gives testimony of the sincere striving of mothers to secure the highest efficiency in their life work. The traditional belief that the preparation for the care and training of children will be acquired as a divine right by every mother does not satisfy the practical demand for special preparation in every department of present-day activity. Each mother who enters her vocation with even a passing appreciation of the problems before her desires, with more or less definite purpose, to profit by the wide range of experience of hundreds of other mothers.

PHYSICAL DEVELOPMENT

The first problems confronting the young mother are concerned with the child's physical well-being. Muscular movements of the face, fingers, arms, and legs first attract attention to the infant's individuality. Continuous quiet is advised by all authorities on the healthy growth of the very young babe. Nervous excitement and irregularity interfere with normal growth. The child who is immediately taught to take its nourishment at regular intervals, and allowed to remain quietly content in physical comfort until the powers of seeing and hearing are quite fully developed, will make the most rapid and healthful progress. Such regularity is the beginning of self-control, which is the climax of an education.

WEIGHT

A knowledge of the correct weight of a baby—whether he is growing or losing—is an important feature in the care of an infant. Many medical authorities claim that a daily record should be kept for the first two weeks of a child's life and then a weekly record for the first six or eight months, and every two weeks thereafter, until he is one year old. During the second year he should be weighed monthly. The average weight of a new born infant is about seven pounds. During the first three or four days the baby loses in weight, but at the end of eight or ten days he is back to his first weight. From four to seven ounces each



week is a fair gain for the first six months. An ideal condition exists when there is a *regular* gain. A baby fed entirely upon starchy foods or some of the prepared foods

will often show a great and sudden gain in weight, but experience shows such a child will not be as strong physically as the one who has lived upon a milk diet and has had a slow, steady gain in weight.

RATE OF INCREASE

The following chart arranged by Dr. Walter Lester Carr shows the increase the first year :

CHART NO. 1

	Month											
At birth	1	2	3	4	5	6	7	8	9	10	11	12
Pounds.....7	8 ¹ / ₄	10 ¹ / ₂	12 ¹ / ₂	13 ³ / ₄	14 ³ / ₄	15 ³ / ₄	16 ¹ / ₂	17	17 ¹ / ₂	18	18 ³ / ₄	20

Chart No. 2 by Charles Gilmore Kerley, M. D., gives approximately the same figures and extends the observations to six years.

CHART NO. 2

Weight for a Well Baby.

			Boys	Girls
Average weight at birth.....			7.55	7.16
" " " 3 months			11.75	11.5
" " " 6 "			16	15.5
" " " 9 "			18	17.75
" " " 12 "			20	19.8
" " " 18 "			22.8	22
" " " 2 years			26.5	25.5
" " " 3 "			31.5	30
" " " 4 "			35	34
" " " 5 "			41.2	39.8
" " " 6 "			45	43.8

Chart No. 3 by Dr. Kerley shows the average measurements for six years, which also serve as an index of the child's physical welfare.

CHART NO. 3

Height in Inches from Birth to Six Years.

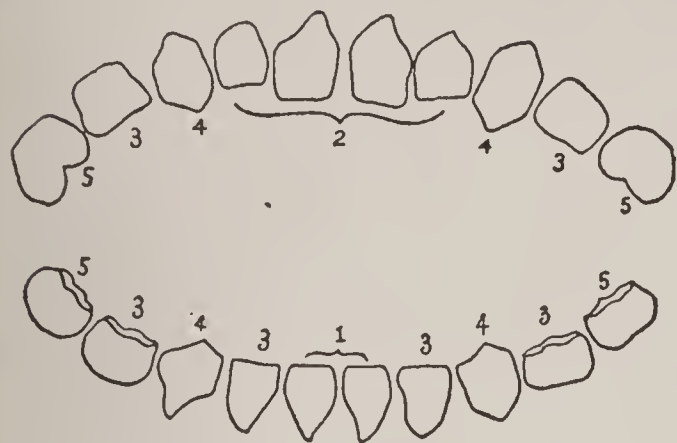
	At birth	6 mos.	12 mos.	18 mos.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.
Boys.....	20.6	25.4	29	30	32.5	35	38	41.7	44.1
Girls.....	20.5	25	28.7	29.7	32.5	35	38	41.4	43.6

DENTITION

There are twenty teeth in the first or so-called milk set of teeth. The first appearance of teeth, the two lower incisors, is generally from the fifth to the ninth month, though drooling and the condition of the gums may seem to indicate their coming somewhat earlier, and they may fail to appear till even the eleventh or twelfth month.

These are followed by the four upper central incisors, which appear from the eighth to the twelfth month. Then come the other two lower incisors and the first molars, both upper and lower. Sometimes the incisors come through before the first

molars, but usually the first molars appear before the two lateral incisors. The four canine teeth appear next, the upper ones being called the "eye" teeth and the two lower ones the "stomach" teeth. They appear from the eighteenth to the twenty-fourth month of age. Finally the four second molars appear from the twenty-fourth to the thirtieth month.



The accompanying diagram shows the order and time of the appearance of the first teeth in a normal child. Illness or difficulties of nourishment frequently cause variations. Bottle babies usually get their teeth later than breast-fed babies.

FIRST (MILK) SET OF TEETH

1. Lower Incisors—fifth to ninth month.
2. Upper Incisors—eighth to twelfth month.
3. Lateral Incisors and First Molars—twelfth to eighteenth month.
4. "Stomach" and "Eye" Teeth—eighteenth to twenty-fourth month.
5. Second Molars—twenty-fourth to thirtieth month.

(This illustration is taken from Starr's *Hygiene of the Nursery*.)

During dentition everything used in connection with the baby's food should be kept scrupulously clean, as it is not the teething in itself that causes trouble but the fact that the lowered vitality due to the extra demand put upon the child renders him much more susceptible to the injurious effects of dirty, half cleaned, or unsterilized nipples and bottles, and milk that may be at the point of chemical change.

SENSE DEVELOPMENT

It is generally conceded that touch, taste, and smell are somewhat developed at birth, while sight and hearing do not appear until later. Touch appears to be the first sense actually developed. A child at birth will grasp a finger or stick placed in the palm of its hand. Experiments have been made with infants less than an hour old in which they have definitely closed the fingers over a stick and grasped it with sufficient tenacity to support their own weight when lifted by the stick. This most interesting fact has been claimed as an illustration of the theory that man embodies in his early infancy, habits and structures characteristic of lower forms of animal life from which he has developed by the process of evolution. This ability of very young infants to grasp an object is related to a monkey's habit of grasping the limbs of a tree and swinging from one branch to another. The sense of taste follows closely that of touch. A very young baby knows whether his bottle is too hot or too cold. Smelling as a means of determining preference does not appear in a baby as early as in the young of lower animals.

FIRST SIGHT IMPRESSIONS

An infant will notice objects, such as a bright light, at the end of the first week, but the actual seeing of objects in definite form does not come till he is three or four months old. The very first sight impressions are those of light and shade with no definite outline of form, as when some bright object, such as the mother's face reflecting the light, or something like a candle giving light passes before the baby's face. The perception of the form of objects begins with a vague, shapeless impression which gradually acquires more and more clearness of outline till, after several months, the child is able to see the definite form of objects and distinguish one from another. Because of its imperfect eyesight at first, every infant tries to grasp objects

far away as well as those near by. To cry for the moon and to be satisfied with a bright ball near at hand is characteristic of babyhood.

A baby's sense of hearing does not develop for several days after birth. A sound, normal child reacts to sound at the end of the first week, but the first deafness disappears only gradually; so that frequently a mother will be congratulated upon having such a "good" baby who will sleep undisturbed by noises in the room. Later this "goodness" disappears and she is frequently disturbed, not realizing that deafness was responsible for his "goodness" at first.

An infant's first smile frequently appears before sight is developed, so that it



may or may not indicate recognition. Be that as it may, it is unwise to require continuous repetitions by injudicious tossings, exclamations, and consequent nervous excitement. It is well if the semblance of a smile is given naturally; it should not be demanded as a reward for the entertainment of the mother and others. Peace should be encouraged from the first hour of a child's life by not requiring overwork and consequent rebellion of the centers controlling motor and sensory nerves. If a mother is content to accept the slow natural development of her child, she will be repaid a thousand fold. About the end of the second month of an ordinary child's life, the sense of seeing is sufficiently developed so that the smile does mean recognition. That the auditory nerves are developing at the same time as the optic nerves is shown by the recognition of voices and other sounds.

CARE OF YOUNG CHILDREN

Many a baby has been born a healthy, normal infant, but the problem of artificial or bottle feeding arises and a sad history follows. Various foods are tried and thrown aside with the decision that "nothing agrees with the baby." After several months

he weighs less than when born; he is subject to all sorts of disturbances of digestion; his flesh is wasted and flabby,—his life is a tragedy and his mother's has become a continuous round of fear, misgiving, and despair. The changing of a baby's food is too serious a problem to be lightly undertaken. Artificial feeding is by no means the simple matter the majority of the uninitiated seem to consider it. Each child is a law unto himself, and what is life to one may be death to another. No mother has a right to tamper thoughtlessly with her baby's food or indulge in careless experiment.

FOOD FOR INFANTS

The following milk-feeding formulæ prepared by Dr. L. Emmett Holt, of New York, and described in his book, *The Care and Feeding of Children*, are considered by many physicians the best and easiest to apply:

FORMULA I (Third to Fourteenth Day)

Ingredients	Quantity of Each Required to Make			
	12 oz.	16 oz.	20 oz.	24 oz.
Milkounces	1	1¼	1½	2
Cream “	1	1¼	1½	2
Limewater “	¾	1	1½	1½
Water “	9¼	12½	15½	18½
Milk-sugar (even teaspoonfuls).....	1½	2	2½	3

Ten feedings. Feed every two hours from 6 A. M. to 10 P. M. Feed also at 2 A. M. Quantity, 1 to 2½ ounces.

FORMULA II (Second to Sixth Week)

Ingredients	Quantity of Each Required to Make			
	20 oz.	24 oz.	28 oz.	32 oz.
Milkounces	2	2½	3	3¼
Cream “	2	2½	3	3¼
Limewater “	1½	1½	1½	2
Water “	14½	17½	20½	23½
Milk-sugar (even teaspoonfuls).....	2½	3	3½	4

Ten feedings. Feed every two hours from 6 A. M. to 10 P. M. Feed also at 2 A. M. Quantity, 2 to 3¼ ounces.

FORMULA III (Sixth to Eleventh Week)

Ingredients	Quantity of Each Required to Make			
	24 oz.	28 oz.	32 oz.	36 oz.
Milkounces	3	3½	4	4½
Cream “	3	3½	4	4½
Limewater “	1½	1½	1½	1½
Water “	16½	19½	22½	25½
Milk-sugar (even teaspoonfuls).....	3	3½	4	4½

Eight feedings. Feed every two and a half hours from 6 A. M. to 10 P. M. Feed also at 2 A. M. Quantity, 3 to 4½ ounces.

FORMULA IV (Tenth Week to Fifth Month)

Ingredients	Quantity of Each Required to Make		
	28 oz.	35 oz.	42 oz.
Milk	8 ounces	10	12
Cream	3½	4	5
Limewater	1½	1½	2
Water	15	19½	23
Milk-sugar (even teaspoonfuls).....	3½	4½	5½

Seven feedings. Feed every three hours from 6 A. M. to 10 P. M. Feed also at 2 A. M. Quantity, 4 to 6 ounces.

FORMULA V (Fifth to Tenth Month)

Ingredients	Quantity of Each Required to Make			
	30 oz.	36 oz.	42 oz.	48 oz.
Milk	11¼ ounces	13½	13¾	18
Cream	3¼	4½	5¼	6
Limewater	1½	1½	2	2
Water	13½	16½	19	22
Milk-sugar (even teaspoonfuls).....	4	4½	5½	6½

Six feedings. Feed every three hours from 6 A. M. to 10 P. M. *No feeding* between 10 P. M. and 6 A. M. Quantity, 5 to 8 ounces.

Baby will generally drop his 2 A. M. feeding himself by sleeping through the entire night from 10 P. M. to 6 A. M. Barley water or oatmeal water may be substituted in this formula for the plain boiled water.

FORMULA VI (Tenth to Twelfth Month)

Ingredients	Quantity of Each Required to Make	
	42 oz.	48 oz.
Milk	19¼ ounces	21½
Cream	5¾	6½
Limewater	2	2
Water	15	18
Milk-sugar (even teaspoonfuls).....	4	5

Five feedings. Feed every three and a half hours from 6 A. M. to 10 P. M. Quantity, 6 to 9 ounces.

At midday meal from 1 to 3 ounces of freshly prepared beef juice should be given and the quantity of feeding lessened by from 1 to 3 ounces at this meal.

A diet schedule for older children is given, as prepared by Dr. Theron Wendell Kilmer and described in his book, *The Practical Care of the Baby*.

DIET SCHEDULE FOR CHILDREN FROM THE FIRST TO THE SIXTH YEAR OF AGE

TWELFTH TO FIFTEENTH MONTH (Five meals daily)

- 7 A. M. Eight to 10 ounces of milk made after the following formula:
- Milk

Cream

Water

Milk-sugar
- 30 ounces.

5

15

10 teaspoonfuls.

This quantity will usually be sufficient for the day's supply. It is best to make the feedings all at once early in the morning and keep the milk in 8-ounce feeding bottles, stoppered with non-absorbent cotton, on ice.

9 A. M. The strained juice of an orange.

11 A. M. Eight to 10 ounces of milk of above formula.

2:30 P. M. Four to 6 ounces of chicken, mutton, or beef broth and 4 to 6 ounces of milk of above formula. Or

One poached or soft-boiled egg, with a piece of zwieback and 4 to 6 ounces of milk of above formula. Or

Two to 3 ounces of fresh beef juice and 6 to 8 ounces of milk of above formula. Or

Four to 6 ounces of oatmeal or barley gruel added to 4 to 6 ounces of milk of above formula, and a piece of zwieback or stale bread.

6 P. M. Six to 8 ounces of milk of above formula, with 2 ounces of barley or oatmeal gruel added.

10 P. M. Eight to 10 ounces of milk of above formula.

FIFTEENTH TO TWENTIETH MONTH (Five meals daily)

7 A. M. A well-cooked cereal, and milk of the following formula:

Milk	40	ounces.
Cream	2½	"
Water	7½	"
Milk-sugar	5	teaspoonfuls.

The child should have milk (of above formula) on the cereal, and also a glass of same milk to drink. Every other day he may have an ounce of cream added to milk he eats on cereal.

9 A. M. Juice of one orange.

11 A. M. Eight to 10 ounces of milk of above formula, with 1 or 2 tablespoonfuls of a cereal jelly.

2:30 P. M. One to 3 ounces fresh beef juice and 4 to 6 ounces of milk of above formula. Or

Four to 6 ounces of beef, chicken, or mutton broth and 4 to 6 ounces of milk of above formula and a piece of zwieback. Or

One poached or soft-boiled egg with stale bread crumbs, a piece of toast or zwieback and a glass of milk.

Dessert with any of the above selections for this meal: Stewed prunes (no skins), 2 tablespoonfuls; baked apple, 2 tablespoonfuls; or custard.

6 P. M. Four to 6 ounces of milk of above formula with 4 to 6 ounces of barley or oatmeal gruel added.

10 P. M. Eight to 10 ounces of milk of above formula with 1 ounce of cereal jelly added.

TWENTIETH TO TWENTY-FOURTH MONTH (Four meals daily)

7 A. M. A dish of some well-cooked cereal with milk, piece of stale bread or zwieback, and 4 to 6 ounces of milk.

9 A. M. Juice of an orange.

10:30 A. M. Ten to 12 ounces of milk.

2 P. M. One tablespoonful of scraped beef or scraped mutton, stale bread or zwieback, and 4 to 6 ounces of milk. Or

One to 3 ounces of fresh beef-juice, stale bread, or zwieback, and 4 to 6 ounces of milk. Or

Four to 6 ounces of beef, mutton, or chicken broth, stale bread, toast, or zwieback, and 4 to 6 ounces of milk. Or

A poached or soft-boiled egg on a small, well-baked potato, toast, stale bread, or zwieback, and 4 to 6 ounces of milk.

Dessert with any of the above selected meals, such as stewed prunes (no skins), 2 to 3 tablespoonfuls, or baked apple.

6 P. M. Eight to 10 ounces of milk, with 2 ounces of a cereal jelly added.

TWO TO THREE YEARS OF AGE (Three meals daily)

Breakfast (7:30 A. M.). Oatmeal, hominy, farina, wheaten grits, rice or any cereal (well cooked), and rich milk and a small amount of granulated sugar. The cereal should be well salted. A soft boiled or poached egg should be given every other day. Stale bread, zwieback, toast, graham crackers. A glass of milk.

The juice of an orange should be given between breakfast and dinner.

Dinner (12:30 P. M.). Rare steak, rare mutton chop, rare roast beef, white meat of chicken, baked or mashed potato with cream, spinach, fresh string beans, fresh peas, and stewed celery—cook all vegetables well. Mutton, beef, or chicken broth (may be thickened with arrowroot or cornstarch). Stale bread, zwieback, or oatmeal crackers. A glass of milk. Dessert: baked apple, stewed prunes, rice pudding, or custard.

Supper (6 P. M.). A well-cooked cereal and milk. Stale bread in milk; occasionally a small cup custard. Graham crackers, dried bread, or zwieback.

THREE TO SIX YEARS OF AGE (Three meals daily)

Breakfast (7 to 8 A. M.). Oatmeal, hominy, wheaten grits, rice, farina, or any well-cooked cereal and rich milk and a small amount of granulated sugar. The cereals should be well salted. A soft-boiled or poached egg. Bread and butter. Graham or gluten crackers. A glass of milk.

Dinner (12 to 1). Broths and soups, lamb, rare roast beef, rare steak or mutton, white meat of chicken, or fresh fish (broiled or boiled). Baked or mashed potatoes, asparagus tips, spinach, stewed celery, fresh string beans and fresh peas, orange, baked apple, stewed prunes, rice pudding, tapioca pudding, bread pudding, junket, and plain custard. Ice cream occasionally.

Supper (6 to 7 P. M.). A well-cooked cereal and milk. Stale bread in milk, arrowroot pudding, dried bread, graham crackers, zwieback, and milk toast. A glass of milk.

A well child should never be allowed to eat anything between meals.

Cool boiled water should be given to the child to drink between meals.

CLOTHING

GARMENTS NEEDED TO KEEP THE CHILD WARM

The amount of clothing adopted by many mothers would hardly be considered sufficient for an older person under the same conditions. A low necked, sleeveless band, with a light weight shirt and sleeveless flannel petticoat are all that protect the child's body, aside from the thin muslin dress which covers these. Over the arms there is practically nothing but the shirt sleeve, and for the lower part of the body, the diapers and a loose flannel petticoat with knit hose or socks. When it is remembered that all too often the clothing is damp much of the time, it will be seen that there must be extra labor and precaution to prevent the lowering of the bodily temperature below normal which produces that weakness and depression often resulting in pallor, loss of appetite, head colds, and disorders of the stomach and bowels. For rooms of

normal temperature infants should have, in addition to the articles named, a high necked, long-sleeved slip or gown of flannel or good outing flannel, and frequently wear a light knit wool jacket to protect the arms, neck, and shoulders if the weather is severe or the temperature lowered for any cause. Every child must be kept warm and dry if he is to be comfortable and healthy.

SLEEP

At first the child sleeps of its own accord during most of the time but soon the waking periods begin to increase in length. To an intelligent observer it is not difficult to define the limit of the waking period. Content and happiness change to irritability, and too often the little brain, which is already beginning to weary, is still further strained by bouncing and the pressing of greater and more novel distractions upon it till the cord snaps and a nervous cataclysm results. In the beginning it was simply a matter of being sleepy.

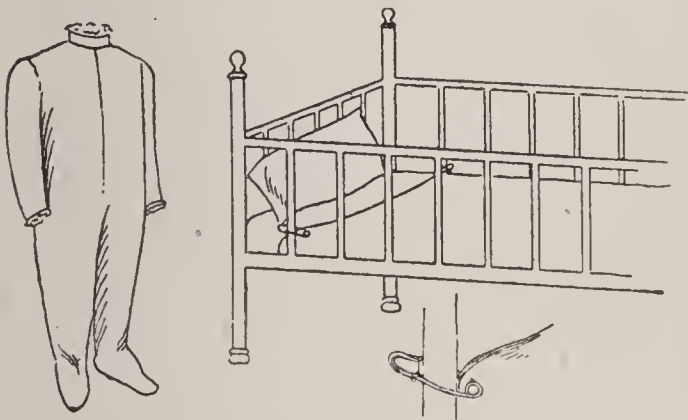
The most favorable conditions for sleep, as well as opportune times, must be considered if the child is to reap the greatest benefit from it. Fresh cold air is essential and a freedom from all sudden, sharp noises. A child placed upon its stomach will often sleep three or four times as long as upon its back. Only when sleeping upon its side does a child need a pillow, though a very thin one is harmless in other positions. Uniformity in time and place is also conducive to the best sleeping habits. If a child is put in the same place at the same time each day with familiar, monotonous surroundings the habit of going to sleep without protest becomes fixed.

A simple device for keeping the covers in place for a child old enough to turn over and kick freely, is the large horse-blanket safety-pin about four inches long and strong enough to hold the covers for a child ten years old. This may be pinned through the blankets and around a rung of the crib at the sides, or strong strips of cloth may be tied around the posts of the bed and the clothing pinned to these. The freedom from the anxiety and care required to keep an active child covered all night is well worth the experiment.

The clothing should be warm and loose. For a baby under one year old a nightdress which can be closed at the bottom either by a draw string or buttons will be found very practical in insuring the protection of the feet and limbs. It is also well to have the sleeves long enough to cover the hands and have a draw string for closing them too.

For older children the night drawers of cotton or outing flannel are best with the feet for winter wear in cold climates and the knee-length, light-weight ones for summer.

The daytime nap or naps should be taken out of doors if possible, and, with such arrangements as the sleeping porch and window box, this is almost always possible. A young baby may be placed in his carriage and rolled out near an open window, through which the mother can glance occasionally to keep watch of him without disturbing his rest and can hear him when he awakens. By selecting the sheltered places in winter and the shaded ones in summer the child becomes so accustomed to different weather conditions that colds are unknown. The quiet and seclusion that comes from being away from people and in the open air does much to establish serenity of disposition. As the child grows older, the garments worn for these outdoor naps are the same as for his airing taken while awake.



AIRING

A baby born in the summer may be taken out doors when it is two weeks old ; one born in the spring or fall should not be taken out usually until it is a month old, while one born in winter may take an outdoor airing when two months old. He should, of course, be protected from the sun and wind. At first fifteen minutes is long enough to keep the baby out but this may be gradually increased. If placed in his carriage he can be better protected and if he falls asleep can be left undisturbed till he wakens. The following times for giving a baby his airing are generally recommended :

Spring	9 A. M. to 4 P. M.
Summer	7 A. M. to 6 P. M.
Fall	9 A. M. to 4 P. M.
Winter	10 A. M. to 3 P. M.



The best outdoor garments for a child under one year old, or for a young child who will lie or sit in his carriage, is a bag, open at the neck, in which he may be placed and his hands and feet perfectly protected. The only other article of clothing needed beside a carriage robe is a hood and, for some conditions, a veil. This bag may be made as warm as desirable according to the material used, double-faced eiderdown, or eiderdown lined and padded, astrakhan, or bear-skin cloth. It may be closed with a draw string at the neck and snaps down the front as far as it opens.

GROWING ACTIVITY

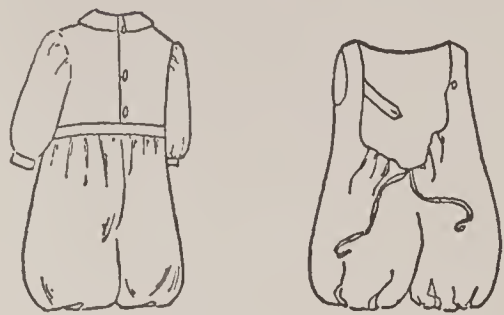
The first movements of the child are the erratic, involuntary movements of the arms and legs, also of the face and fingers. Apparent exceptions to these are the early instinctive movements which are definite and resemble voluntary movements. They are the movements of self preservation, such as sucking and the definite grasping of objects touching the palm of the hand.

Observation shows that there is nothing of voluntary activity till the fourth month. It is then that the first definite imitations may be noticed ; the mother makes some movement of her head or claps her hands and the child does the same. Soon the movements become directed with more or less precision. Definite expression may be noticed about the same time: crying to call some one, pointing at objects, pointing toward the door or carriage accompanied by some sound to show desire to be taken out of doors, etc. Soon appear the conscious voluntary actions such as reaching for objects with a definite purpose, actions requiring the association of two ideas, the idea of the object and the motion necessary to secure it. When this stage is reached there are unmistakable proofs each day of the child's dawning intelligence. The instinctive actions such as sucking become more voluntary, the child grows more and more independent in taking food, and will now grasp the bottle with his hands.

At about the third or fourth month a child will keep his head in equilibrium ; an achievement which is acquired gradually with the hardening of the bones and muscles ; but it is only when he has become really attentive that he performs the distinctly voluntary act of turning his head to right or left to look at any object he wishes to observe.

When he has learned to control the movements of his head and hold it erect he begins to try to raise himself into an erect position. These repeated efforts strengthen his back until the mother is frequently surprised to discover her baby sitting upright for a few seconds. Frequent efforts give better control, till about the sixth or seventh month the child can sit alone. When this control is well established a warm rug or

comforter should be placed on the floor and the child allowed to sit there with a few toys, for in reaching after these he acquires the ability to move from his position, and this in time develops into a mode of locomotion, either creeping, or "hitching," according as he learns to turn over on all fours or remain upright. This occurs about the eighth month and considerable speed may be acquired in either method. At four or five months a child should be dressed in short clothes so that he may have greater freedom in the movement and development of his legs in kicking. When a child begins to creep, rompers or a creeping apron should be substituted for a dress or slipped on over it to allow that freedom necessary for healthy development. At about the ninth or tenth month a well baby will begin to raise himself by taking hold of objects above him and soon learns to stand, assisted by some object.



Action in itself is a pleasure and when a child has reached this stage he is usually very eager and persistent in exercising his newly acquired power. Imitation spurs him on as he sees older children standing and moving about. Great care should be taken to prevent his standing too long till his bones become firmer and all danger of "bow legs" is past. A child should never be urged to stand or walk; when he himself *insists* upon it, it is usually safe to say he is strong enough. At about eleven months of age he should be able to stand alone and often it is only a few days from this time that he will be found taking a few steps independently. Frequently a child will appear to be intoxicated with the power of locomotion and will persist in walking, rising, and starting off after each fall as soon as he can gather himself together, till he is quite exhausted.

Nothing is more variable than the time when a child ventures to take his first step. Sometimes many months elapse between the ability to stand and the first steps in walking. It has been claimed that a child who walks early will talk late, and vice versa, so that earlier development along one line, i. e., the physical, as in walking, is balanced by a corresponding retardation along another line, i. e., speech, which is pre-eminently a mental act. Walking is essentially physical in its nature, but it also involves moral traits as well. A child's walk indicates certain characteristics, as impetuous activity, or slow indolence. One who is very active will risk more, meet with more failures, but also recover quickly and in the end master himself more quickly than the one who ventures little, fails little, and accomplishes little.

The movements of walking, i. e., falling forward and then catching one's self, are primarily instinctive; but they require attention and so are voluntary acts which by habit become automatic. When this habit is broken, as when an adult is confined to his bed for some time, these movements require attention again upon first attempting them.

SPEECH

Speech is the resultant of developed and regulated physical organs requisite for the utterance and hearing of sound and the mastery and adaptation of these organs by the intelligence and will; perception must distinguish the sounds heard, memory must hold them, attention fix them firmly, and thought clothe with sense and meaning each articulation uttered or heard. The first inarticulate sounds and cries become more and more articulate. Some authorities place the transition from the cry to the voice at the end of the second month. Consonants become joined to vowels, the guttural and labial consonants being produced first, then the liquids and linguals. To be able to speak, a child must also hear. Deaf mutes are really only deaf, for they have been taught to make sounds and pronounce words. When the vocal organs are sufficiently developed to produce sounds the child does this for the mere pleasure of motion of

tongue, lips, and other organs and attaches no meaning to them. Thus a child will repeat the syllables "da, da" without a gleam of intelligence until the other members of the family associate it for him with his father and he comes to a conscious association of the syllables "Dada" with his parent. It is an important moment in a child's life when he understands the relation between an object and a sound or between some need he feels and an utterance, and can voluntarily apply that understanding by making use of his voice. A child's understanding of words addressed to him precedes his power to repeat them, either from lack of sufficient development of the vocal nerves or from lack of will power to direct them. Children usually speak their first intelligent words about the middle of the second year.

LEARNING TO TALK

Many of the first spontaneous emissions of voice cannot be classed in any human language and will never appear in the language which the child will speak. The sign language precedes the language of speech. When a child shakes his head or points to an object he wants, he is trying to express very definite ideas. A child's gestures are intelligent long before he speaks. The change from random gestures to intelligent signs is easier than giving meaning to articulations pronounced at first without intention. In the beginning of language gesture often comes to aid imperfect speech. In this way a child learns gradually to pronounce, repeat, and interpret words. A child learns to speak in two ways. Sometimes the idea has become fixed and, after many experiences, the child associates a word with it. A child is not wholly imitative, for he frequently invents the first words he uses and has in a degree a language of his own. Sometimes a child produces a sound or word himself and the parents give meaning to the syllables he has spoken without definite intention on his part; or he may invent a word and fix the meaning of it; or, in still a third method, parents give the words and the child repeats them but attaches meanings of his own to them. A child finds in part his own language and makes certain sounds rather than others because they are naturally easier. It is claimed that *papa* and *mamma* are his names for father and mother in so many languages because these syllables are the ones instinctively uttered.

A child, imitating spontaneously the cries of an animal, produces sounds which become the names of the animals for him. "Bow wow" is doubtless as often invented by the child as the name for dog as it is taught to him. This originality sometimes shows itself to such a degree that children associated together will devise a language of their own in which they converse fluently without using words intelligible to their adult associates. The fact that deaf mutes do not speak because they do not hear shows how large a part imitation has to play. It is usually not until the tenth or twelfth month that a child tries to repeat sounds pronounced before him. Toward the end of the second year there is an attempt at grammatical construction by such expressions as "good baby." When once a child has reached this point his advance is usually quite rapid; memory is very active and he unceasingly repeats the same sentences. Even now, however, his progress is marked by many variations. Mothers and nurses should be too considerate of a child's welfare to indulge in "baby talk." If they do, a child must learn the word twice—once to master its meaning in baby talk and again in English. Let him be addressed as if he were at least a natural phenomenon and not some monstrosity.

PLAY

When a child has learned to walk and to talk a new world opens before him, a world not entirely unknown to him before, but a world of which he has caught but glimpses compared with the possibilities of mastery which now lie before him—the world of play, for play involves speech and action.

Play is the development of muscle and brain power in acts of pleasure, hence it will be seen that the involuntary waving of its arms and legs by a young infant and the making of the first sounds by the voice, when done for the very joy of action, constitute play. None the less are his splashing in his bath, fingering his crib, and handling his mother's fingers, play. He crows and gurgles; it is for the joy of living. To be happy is his birthright and to deprive a child of the opportunity to love life to the fullest capacity of his little soul, and to express this in play, may easily hinder his complete physical development. A child thus deprived is apt to be lethargic and inefficient, an easy victim to all sorts of nervous disorders and other ailments. A child's nervous development depends upon the happiness of his home atmosphere. Bursts of temper, scolding, fault finding, all leave their imprint on the nervous temperament of the child as tendencies to nervous outbreaks of varying seriousness from ordinary fits of anger to "tantrums" and hysterics.



A most valuable preventive is play with its pleasurable activity, especially the simple natural sports which bring into exercise the more important muscles and the vital organs without overtaxing them, such as tag, hide-and-seek, ball, etc. When a child is old enough to participate in vigorous plays he should be so dressed that he may have perfect freedom.

The continued use of rompers as play suits for a child who has learned to walk and even run is a most sensible device whereby the child is free to run, climb, roll, and tumble to his heart's content unimpeded by skirts or dresses. The use of bloomers with the play dresses of little girls is also a step toward a more sane and sympathetic consideration of childhood and does away with much of the fancied necessity of constant warnings and precautions about girls' indulging in vigorous romping.

In winter children should be protected by tights or knit leggings covering their indoor clothing to the waist and then allowed to wade and frolic in the deep snow to their heart's content instead of confining themselves sedately to the cleared walks. Their rosy, happy faces, aglow with the bloom of health, will amply repay any mother for a few necessary changes of clothing when occasionally the dampness has reached their underclothing.

It is often better not to provide a child with playthings for a time, but notice what kind of articles he will appropriate and use for his own amusement. It may be a cover to a tin can, an empty pill box, or shell, or some piece of cloth or paper. In a child's play one can best read his aptitudes and learn his most intimate disposition.



THE VALUE OF IMITATIVE PLAYS

From the time he is two years of age imitation takes a leading place in his enjoyment, first passively, as in his delight in animals—toy dogs, horses, rabbits, bears, etc., and then more actively as he acquires more freedom of movement and can play with dolls, soldiers, keeping house with toy furniture, etc. In these imitative plays too there is the satisfaction of copying one's elders, and a certain pleasure in appreciating that the result is comical.

The little child's imagination is a constant delight to him, and is an important

accompaniment of his play. He delights in inventions. To the three-year-old astride his father's cane, things are not what they seem. He is, as he boldly announces, "riding a horse." The little girl's rag doll that she has carried to bed with her for a twelvemonth is not an inanimate, stuffed, ill-shaped, and poorly colored plaything.



The doll is already her confidant, her playfellow, and she resents any uncomplimentary remarks concerning dolly's appearance, and still more the sudden and unexplained disappearance of this chosen one of her coterie of sawdust-filled companions. Dolls and canes are not what they appear to be in mature eyes, for children live in a world filled with imaginings; each object is to them a symbol, a visible sign that suggests another thing often very unlike what is seen in reality. A criticism of many of the elaborate mechanical devices manufactured today to amuse children is that they leave so little for the child to *do*. There is never the same affection for something which is complete in its possibilities as for those toys or materials with which he may *create* something of his own. For this reason blocks and the sandpile, clay, colored crayons, etc., are good investments.

Curiosity often plays a large part in children's activities, as when a child takes apart his dolls, engines, and banks to find how they are made. When he can put together materials to work out his own conception he not only has the pleasure that comes from being actively employed, but his curiosity as to the outcome is satisfied and he enjoys the effect his creation produces upon others. He likes to astonish or amuse them. Many a mother recognizes this in the familiar, "Look, mother, look," which so often breaks in upon her occupation.

GROUP PLAYS

In the imitative plays the child's social instinct is often gratified for it brings him into contact with his fellows, it gives him the chance to put himself forward, to show his strength and declare his personality. Groups always include those who inherit, or by imitation have acquired, strong powers of initiative. These foremost ones soon discover that following the rules of the game is the price of leadership. No group will tolerate a leader who does not "play fair." Here again, in the group game, the primal virtue of obedience is emphasized by the demands of the child's equals in strength or age. For in the outdoor or indoor sport each member of the group is ready to require that justice to himself or others shall be shown immediately. There is small chance for the selfish one to secure continuously all of his exacting demands.



To facilitate such training in the Golden Rule of kindness, "Do unto others as ye would that they should do unto you," the parents should permit their little ones to begin early in life to play with others. If the environment or home neighborhood is morally unsuitable for such natural social training for an only child, by all means

provide for the loss as well as may be by securing numerous living pets. These, until the time comes for suitable child companions, will somewhat supply his need of social life. Being continuously master may, however, cause him to become a miniature autocrat, or spoiled child, one of the most unpleasant types of ill-mannered childhood. If we remember that "to spoil" literally means "to rob," to render useless by injury, as in spoiling our eyesight by improper care we are robbing ourselves of the invaluable gift of sight, we will better realize the full meaning of the word when used with regard to an ill-trained or ill-used young human being. A spoiled child is one whose faults are due to lack of the proper supervision and parental guidance, one who has been despoiled of his inalienable right to be happy and to create pleasure. Happiest of all creatures living is the child who, during the formative period of his character, has a group of brothers and sisters to check the outgrowth of his wrong impulses, and to aid materially in enlarging his earliest concepts of the rights of others and what is truly best for himself.

It is evident that play is not merely a distraction and amusement for children, but a serious thing. With all the experience of intellectual activity, the reasoning called forth in their constructive plays, the exercise of the will in carrying out their plans, the traits of character developed by constant association with others involved in certain plays, it will readily be seen how a child deprived of play may suffer mental and physical deficiency.

KINDERGARTEN WORK IN THE HOME

A mother may do much to prepare her child for the routine of school life and lessen the bewilderment which comes to him there by giving some direction and definite trend to his activities through the use of kindergarten materials at home. Several ends are served; he becomes accustomed to a short period of directed effort each day instead of following entirely the dictates of fancy in his play; he becomes familiar with various kinds of material; he gains nimbleness of touch and manual dexterity. And with this control of his muscles in definite movement comes great self-control in other lines so that it is all a step toward the discipline of school life. Then, too, he comes to have a certain pride in the results of his creative efforts, and by preserving such of his work as can be kept, he may be interested in his own progress. All this prepares him for doing his best in similar tasks later. But not to the child alone does all the advantage come. It will prove a source of enjoyment to the mother to participate in her child's development in this way, to watch his progress and see how he responds to the direction of his energies.

HOME GIFTS IN RELATION TO KINDERGARTEN THOUGHT

THE BALL

In the home, as in the kindergarten, the baby early receives the ball as a play-thing, and this toy, of varying sizes and materials, continues throughout childhood to occupy much of his time as a game. To train the fingers of a creeping child not to put small balls into his mouth, as well as other things he may be able, possibly, to swallow, is of necessity one of the first lessons in direct obedience. To roll the ball back and forth, to toss it to and fro, and finally, when done with play, to put it back into the box or in the corner where it belongs, is a series of lessons closing with the essential thought of helpfulness and order. These acts must be many times repeated to make them habits. Mother's or nurse's thanks for this beginning of loving help in maintaining an orderly room is sufficient reward. But the lesson is but half learned if the child when three years old has not formed the habit of preferring to have his ball or marbles put into the place intended for them. This play of putting things away in an orderly fashion is one of great importance in the kindergarten.

BUILDING BLOCKS

Cubical blocks, plain or decorated in colors, are better for the youngster to play with than the commingled building blocks of all shapes and sometimes of many sizes in one set. The large pasteboard boxlike blocks which fit into the others are excellent for the baby games, because they are large, light and usually extremely attractive in coloring. From their pictured sides, the child gains an idea of animals, their names, and what each is able to do. Directed by his mother the beginner learns with the assistance of older hands how to balance these blocks in a somewhat orderly manner, one upon the other. Then to show his own power he quickly pushes over the tower he has built, and, happy in the transformation, he is ready to begin the play over again. The different arrangements of the blocks are complete when at last they are dropped one within the other and ready to be put away. This play requires at first great power or coördinate movement of the muscles and steadiness of the nerves. Do not let a child occupy too much of his playtime or use his nerve force too vigorously at first in endeavoring to do "just as mother does" in arranging the blocks into any form. Yet many a babe by patience and perseverance has gained rapidly the coördinated power to build the tottering tower without any help but the word of praise. The constant strengthening of these two virtues aids in the upbuilding of his character or will, and forms one of the chief values in the more elaborate building games with solid cubical blocks which follow when the hands are stronger.

If the alphabet is printed upon any form of these cube-shaped toys, so much the better. There is no more harm to the child in learning the names of the letters than those of the animals. But let it be done incidentally. Thrice blessed is that child whose mother is satisfied to take such achievements as a matter of course without attempting to repeat them solely for the entertainment of guests or members of the family. There need be no excitement simply because Baby has recognized and spoken once or twice the name of a letter or the picture of an animal. Quiet growth in memory and other faculties of the mind is as absolutely necessary as a slow, healthful physical evolution from weakness and inefficiency to strength and independent movement.

THE CYLINDER

The baby's rattle is usually a ball at the end of a round handle. With the first clasp of his hand about this handle, he grasps a cylinder. Earlier still he will have caught his mother's fingers in his own, and thus the sensation or feeling of length with roundness has been first recorded. Ivory, rubber, or other rings upon which he is allowed later to press his gums repeat the sensation and make the roundness still more familiar. Spools are a delight as he grows older, and a long string of these will afford great amusement. Ridingwhips for true or make-believe rocking horses give again the same sensations. There is not the slightest need of teaching the word cylinder, but it is well for the mother to recognize that this form is very common in the home and the child has a mental picture of many home objects of this shape before he enters the kindergarten, where he delights in telling of things similar to the little wooden cylinder and of what this so-called gift symbolizes to him.

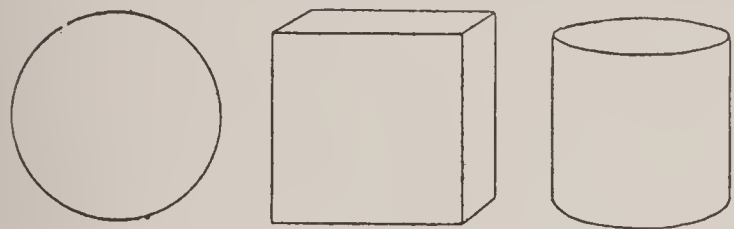
Aside from becoming familiar with these gifts in his earliest play there are many kinds of material which may be used for specially directed exercises. These may be given by the mother or as playthings for the child to work out the suggestion of his own fancy. Other exercises may be given him simply to train him in greater control of the eyes, hands, and fingers.

BEADS

The wooden beads in the seven primary colors can be secured and used simply for stringing on a shoe string. On these the child may meet the sphere, cube, and cylinder as the beads can be selected in these different forms. After some dexterity is acquired

in stringing, the additional element of grouping at first by color, later by form, may be added to the exercise. Large round glass beads in different colors can also be secured and used in much the same way.

SCISSORS



giving small pieces of paper and but one line to cut on each piece. Interest is enhanced if the paper be colored in two colors and the child be asked to separate the colors by cutting along the line between them. After some efficiency is acquired in this give more lines to follow on a simple piece of paper, then simple outlines of objects to be cut out, as sled, house, box, shoe, etc. This may be followed later by the cutting of paper dolls from mother's fashion books and furniture from catalogs; not expecting, of course, that the child can be entirely exact, but all such practice trains him to be more and more so.

Along with this may be given free hand cutting, requiring more and more definite results as the child becomes more proficient. Select first objects more or less variable in outline, as a large snowball, a sack of flour, a straw stack or wheat stack (for the country child), etc.; then objects a little more difficult, as a potato, a popcorn ball, cup, pail, etc., and later a sled, shovel, animals, chair, table, etc.

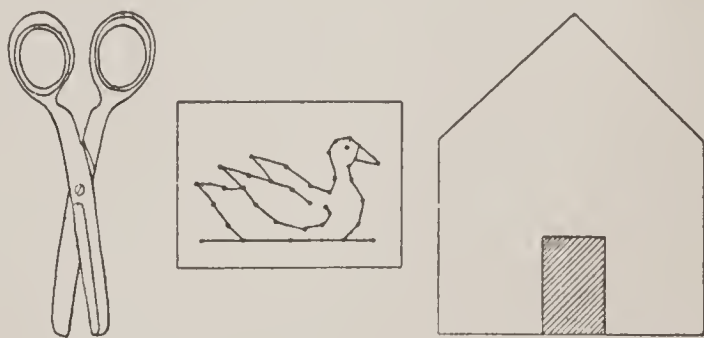
A small box of clay or plasticene may be used for many exercises in copying directly some model or in working out the child's own ideas.

Along with the paper cutting may be used paper folding, teaching the child to fold exactly a few simple designs. This, of course, may then be used for a cutting exercise too. A bottle of library paste or a little home-made paste of flour and water may be used for pasting exercises to train in accuracy and neatness.

Very simple outlines may be given in colored paper to be cut and pasted on others, the result always being some real end to be attained, as a house with a door of different color to be pasted in place, then windows; a fireplace with stockings to be cut and pasted on, a fence with jack-o'-lanterns, etc. Soon blank scrap books may be made and pictures cut out and pasted. A little direction and supervision in the beginning of such work is well worth while as the child may easily be led to consider the best placing of a picture on the page or the most pleasing grouping of several. If he can make little scrap books with enough care to use them as gifts at Christmas time for his little friends, there is added the incentive of effort for the sake of giving pleasure to others.

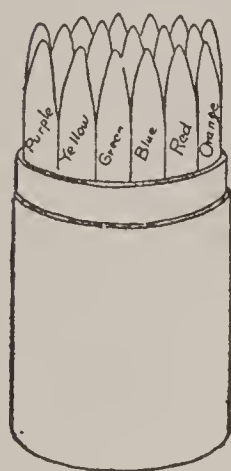
A box of colored crayons for use with paper gives material for many an hour of enjoyment and training in accuracy and harmonious color combinations. The outlines produced in the paper cutting may be colored with the crayons. Simple outline pictures may be colored, and here again mother's fashion books, if they contain un-

The blunt kindergarten scissors may be the source of much educative play on the part of the child. First let him be shown how to hold them and be given paper (not too large a piece at first) to cut as he wishes. When he has learned to hold them properly he may be given several small pieces on which a single straight line has been drawn and asked to cut along the line. The aim should be to simplify the requirements at first by



colored pictures, may furnish good material. Praise for accuracy in keeping within the lines will do much toward stimulating a desire to do well. A small beginning can be made toward good taste in the selection of colors in their own clothes.

After considerable practice in the use of the simpler materials, thin tracing paper or, better still, a ground glass slate and pencil give opportunity for training the eye and hand in accuracy by placing underneath some simple outline picture and letting the child reproduce this on the glass or paper.



Sewing cards give another form of exercise that may be used profitably at home if not attempted too early and if only simple outlines are used at first. A mother with only slight ingenuity can easily make her own if she wishes. The same outline cards if the design be only traced but not perforated may be used for pricking. This requires even closer application, however, and should not be attempted till the child is trained through many of the other exercises.

Beads and tablets for design work are rich in possibilities for enjoyment and training along several lines. The outfit consists of a mat with blind perforations the size of the beads to hold them in place. The beads are of various colors and several complete designs accompany the material. The child at first finds his ability taxed in attempting to reproduce these by selecting beads of the proper color and putting them in the correlative positions. He soon acquires a keen sense of symmetry and balance in design and will often produce astonishing results in original designs. He also learns the most pleasing color combinations.

Colored tablets of cardboard cut in circles and squares an inch in diameter and a large mat ruled in corresponding circles and squares offer possibilities for similar work.

In addition to this work in design a child will enjoy having a blank book of water color paper with the pages ruled like his mat, in which he may copy his designs with his colored crayons and keep them to refer to. He will derive a great deal of pleasure from showing his collection to others. A blackboard and sand box might be added to the list of materials full of interesting possibilities for active hands and fingers.

A child who in his little lesson period has been taught to use these materials will have at his command resources for many an hour of enjoyment that will banish the familiar "What can I do now, Mother?" of the rainy day, besides giving him an equipment of trained activity that will start him well in the requirements of his school life.

HOME OCCUPATIONS

TRAINING IN FAMILY LIFE

Many parents are unfortunate enough to confuse work with drudgery and strive to spare their children from its demands, thereby robbing them of one of the most potent influences in the building of stable, reliable characters. It has been said that one of the most notable characteristics of the children of today is their irresponsible laziness, their inability to hold themselves even to the pursuit of their pleasures, and their consequent half-hearted enjoyment of life. As a matter of fact activities are the essence of enjoyment. To turn from work to play, from play to work, gives zest and value to both, and though the child cannot define this he can feel it most acutely.



Taking care of dolly, in imitation of the mother's care of dolly's owner, is the first training in love for something weaker than the child itself. Let the doll's head be made of something durable, in order that the weak muscles and easily wearied nerves may not let this ideal toy quickly break when it falls. Very soon it is evident that the completeness of the doll is not what appeals to the baby owner, but it is the fact of its non-resistance.



These qualities which please the child's sense of feeling in hand and body are the principal reasons why the "teddy bear" has been popular with children. In answer to many questionings, a little girl who constantly chose her toy bear instead of one of her handsome dolls, finally replied, "Teddy is soft, Dolly is hard."

Does this answer give a hint of the reason why rag dolls are preferred to stiff-bodied Parisian beauties? Fur-covered rabbits and woolly lambs, whether mechanical or simple, cheap specimens of the toymaker's art, delight the senses of touch and sight, and, if small enough to be easily handled, are beloved possessions while they last. Remembering these preferences and any others that the mother may intuitively discover, make choice of a doll light of weight, soft to the touch as to clothing, and as nearly imperishable as possible.

The care of a doll continues up to young motherhood with little maidens and for a long time beyond babyhood with many boys. In the play with mother or with brothers and sisters, careful attention will show how much the little one is absorbing of the every-day life in the home. The baby imagination quickly changes the doll into a symbol of herself, and the child becomes, during short intervals of play from the time it is three years old, a charming little duplicate of the father, mother, and child, and is beginning to learn what is really meant by home and family. Each soon desires the wheeled vehicle for giving dolly a ride, a pillow and a bed, and toy dishes with a table.

Any attempts at helping about the house lead to the purchase of small housekeeping necessities for the little would-be helper not yet old enough to enter the kindergarten or the school. A tiny broom and dustpan or carpet sweeper will permit the little learner to enter into the home industry of removing dust. If by means of these toys the child is made observant of her own shortcomings in the matter of cleanliness, then the lesson is good training for helpfulness in not requiring unnecessary labor from others. Let the little housekeeper have a certain place in which to keep these helping toys and train her to delight in putting them away "just as mother does."



For the boy, the toys used in carpenter work, such as the hammer, nails, and blocks are usually supplied. Let him make, with help from older hands, little wagons from paper boxes with spools or button molds for wheels. These will seem more

valuable to him than his expensive mechanical toys that "go" of themselves when their springs are wound by his older helpers. When through with play, just like the real carpenter, he should learn that tools are to be packed away.

SOME PECULIAR TRAITS OF CHILDHOOD

CURIOSITY

This is a prominent trait in children and has some most interesting manifestations. It develops gradually and is most essential to attention. The first stage is seen in infants two weeks old and is characterized by passive staring. It was an old rule that a baby staring should never be interrupted unnecessarily lest the developing power of attention be hindered. Sight interests predominate during first four or five months, as hats with nodding flowers, bright surfaces, like spectacles, or a lighted lamp. From the fifth month on, sound interests increase in the baby's experience, particularly when accompanied by activity on his own part, as tearing and rustling of paper, ticking of a watch, etc. From six to twelve months begins a stage of active experiment. He enjoys more and more the experience of *doing* till a quarter of an hour of relative inactivity weighs on him as much as a whole day of ennui on a grown person. Curiosity is expressed through the combined activity of several senses. There is a fascination about the contents of bags, boxes, drawers, etc. Rummaging in unexplored places gives the greatest delight. Curiosity as expressed through taste is often the occasion of much distress on the part of the mother of a child from two to four years of age. Some children at this age have a mania for tasting that includes such articles as soap, dirt, paste, rubber, and almost anything that can be detached and put into the mouth. This same peculiarity is shown in the smoking craze among boys from eight to ten years old. Numerous substances are experimented with, as bark, cork, leaves, stems, etc. Imitation plays some part in this, but the longing for new sensations is responsible to a great degree.

Experimental curiosity is the cause of numerous instances of apparent cruelty, such as cutting off a frog's leg to see how long it can hop on one, breaking a chicken's leg to learn how to mend it, pulling off a fly's legs to see if it could walk without them. The asking of questions is another phase of curiosity and usually indicates a desire for information which has well nigh driven to despair many a tired, nervous mother. On the other hand, many a child has harbored an injured feeling for years over the answer, "You are too young to understand," with no promise of receiving a definite answer at some later time.

A common complaint of teachers is that so many children do *not* apply themselves and are inattentive. When a child's attention is passive in nature it is little wonder that it cannot be sustained all the time during school hours when much of the work is not of intrinsic interest to him. Children from five to eight years of age are much interested in the origin of life and all sorts of questions are asked to satisfy their curiosity. Such questions should be wisely and truthfully answered instead of allowing the children to secure answers from those unfitted to give them.

Religious curiosity also plays a large part in the mental activity of a child of this age. Questions as to the origin and character of God are numerous, and the order and form in which religious truths should be taught is a much disputed question. A child's feeling in regard to death depends largely upon the attitude of his older associates, for his own attitude is purely that of curiosity and he has no painful ideas connected with it till the character of the answers to his questions or the attitude of his elders gives him such an impression.

The constant repetition of the same question, an experience familiar to almost every mother, is closely connected with nervous fatigue. Apparently there is no thought of the answer, and if it is given it will not be heard. Certain nervous reactions occur in this instance and become almost automatic.

Destructiveness resulting from curiosity is often misunderstood. Examples of smashing toys to see what is the matter or how they work are familiar to all, and more profitable than many a complicated mechanical device is a cheap clock which the child is allowed to dissect to his heart's content.

THE COLLECTING INSTINCT

Unfortunate indeed is he whose memory cannot extract from the recesses of his past experience treasures dearer to his childish heart than any of the possessions of his maturer years. Sometimes this affection is bestowed upon a favorite top, a polished stone, or scrap of ribbon, but especial interest is attached to the "collection" of objects. As early as the third year children have shown this tendency, but it seems to reach its maximum at about ten years of age. It has been said that it is easier to tell what children do not collect than what they do, objects varying from the most ludicrous and absurd to those of value. Among the more popular are birds' eggs, cigar bands, stamps, marbles, shells, and post cards.

Even more amusing to an adult is the peculiar interest in "luck collections," such as the number of baldheaded men, or red-headed girls, or white horses counted, or four-leafed clovers found. The interest in collecting dolls is greatest at nine or ten years, while paper dolls come a year or so later. In general, it is at from eight to twelve years that the collecting interest is most marked, in what may be called the pre-adolescent age. During adolescence the collecting impulse follows sentimental lines, as seen in the fad of collecting party souvenirs, theater programs, etc. The motives for collecting seem to be principally imitation and rivalry.

Pride in ownership is a trait of childhood and this involves undivided ownership. This often first manifests itself when the child sees the object in the possession of another or when someone else tries to take it. This desire to have something to own is almost a necessity in child life. Younger children, under six years of age, abandon their collections as fast as made or hide them, glancing them over now and then, but never using them. Such collecting is purely instinctive, but as a child grows older the tendency to preserve the collections increases. Pride in ownership causes children to be more careful of their own possessions. The question arises as to the advisability of furnishing children text books. It is better not to do so unless the books are given to the children so that this trait of ownership may be effective in preserving the property. It is a law of being that everyone must have something in the world upon which to lavish his affections and in which to find companionship and reward for effort expended.

MORAL TRAINING

It has been said that the birthright of every child is a strong, loving, patient, consistent training. This presupposes the mother's ability to give such training, for the manner and attitude of the mother is the whole governing force of the household. Any mother who is tempted by the glamour of the outside world to feel that her field of activity and influence is small need only consider how completely the atmosphere of her household is determined by her to realize that she holds in her hands the possibilities of a fascinating and far-reaching problem.

Such capacity does not come by divine right as a gift from heaven. It demands not only the instinctive self-sacrifice of motherhood but a well established power of self-control. Just in proportion as she can control herself may she expect to hold firmly the governing reins of the household. Such self-control comes through a thoughtful understanding of herself and her children. A nervously excitable mother, frittering away her reserve force in exclamations, sensitive to every possible cause of friction, constantly hurrying and trying to hurry those about her, may expect the reflection of all this in her children. If the atmosphere she creates is too strenuous for

them they may lapse into phlegmatic indifference, which she probably considers stupidity and with which she has not the slightest sympathy or patience. She has before her the choice of maintaining such an order of life, or of adopting an entirely different course and, understanding the possibilities before her, give herself up to their realization. This often involves a clear appreciation of what is most worth while in the routine of family life. That she may move from task to task with that poise which bespeaks perfect control sometimes demands the abandonment of some cherished ideal of household management; perhaps the silver must be polished less frequently; perhaps she must relinquish some plan of club work or public interest, or there must be a curtailing of fancy needle work or afternoons at cards. Not only may she have the task of making such a choice as to her course of action, but in dealing with her children she must constantly decide what are the essentials and what the non-essentials in the requirements imposed upon them.

Most mothers will agree upon the kind of a child they would choose to have. He must be wholesome, sweet, happy of temperament, pure in mind and heart. Not one would choose the opposite traits in a child, and yet many a mother is forced to recognize at least some of these undesirable traits in her child. To achieve the end she covets, she must engage in self-study as well as child study. She who can see clearly how much her own individual plans or interests govern her dealings with her child can also see more clearly the child's point of view and maintain that sympathetic understanding of all his interests.

From the day a child is born there arises the necessity of constant discrimination and a comprehension of what today's course of action will mean for tomorrow, next week, next year. It is usually conceded that a child's training begins on the day of his birth. The law of association operates as truly with an infant a few days old in the formation of habits as with an adult. At the end of two weeks a baby may become a relentless tyrant. Such a tiny, helpless bit of humanity seems to the weak and nervous mother too impressionable to be capable of moulding and it seems immaterial whether its vaguely expressed desires are humored or not. If it cries it is rocked, walked with, and humored. It seems such a delicate thing and the whole atmosphere around it is made subservient and the child takes his cue from this.

It is a matter of instinct with a child to cry for what it wants, and by the end of the first week an infant's wants are fairly definite. Crying brings the gratification of those desires, and by the end of two weeks repetition has done much to establish habit. The ease with which habits are established in very young children constitutes the basis for all character building. It is truly pitiable to see a young mother, weak, nervous, and exhausted, afraid to lay her child down lest it cry to be held again. Many a mother whose intention has been to deal wisely and sensibly with her child is an abject slave in a month's time. He wants to be held and intelligently cries for it.

A child's training must be simple and within its comprehension, and the mother must remember that a little child is a stranger to the keen disappointment and intense physical pain known to adults. Firmly holding the hand over the mouth and repeating with quiet emphasis some rebuke will often cause the child to stop; if not, a firm, but gentle spanking will make him feel that what is wrong is disagreeable. It must be vigorous enough to serve as a deterrent memory.

A well baby should never be rocked to sleep, but should be taught from the very first that when placed in his crib he is to go to sleep. To be sure it is a pleasure for the mother to hold the little form in her arms and rock it, but how many mothers can afford to be under such a necessity twice a day, if not oftener, regardless of tasks that are clamoring for their attention elsewhere?

The price of a peaceful household in which there is a young baby is relentless adherence to a schedule for its daily routine. If well, a baby thus treated will respond so uniformly to such discipline that his presence is an unalloyed pleasure.

A baby should be fed just before he is expected to go to sleep. A bottle-fed baby may have his bottle after being put to bed.

One of the most difficult lessons for mothers to learn is the value of quiet and isolation for a baby. After being assured that the child is comfortable, let the mother be content with a glance now and then in his direction without "fussing" over him. This applies to his waking as well as his sleeping hours. Such a course of treatment will do much toward the establishing of a peaceful, happy disposition. Moreover, constant attention leaves but little opportunity for acquiring that most valuable lesson, self-control. Constant attention on the part of attendants or nurses should not be mistaken for devotion. It is but a shirking of responsibility, a makeshift to avoid friction for the time being. Government by distraction never produced an ideal child. Let the rule of discipline be, "Never allow a child to do once without protest or punishment, if necessary, what you are not willing that he should do for all time." A baby whose rules for sleeping had been most carefully adhered to had its routine interrupted and was allowed to waken an hour early one morning, and was taken by the mother. A second morning she yielded, but when a third morning he wished to repeat the performance he had to be punished before he would return to bed and sleep as before. A child's moral sense is merely a reflection of the parent's approval or disapproval; hence the absolute necessity for consistency. Taking "mother's" books is right or wrong as mother's smile or frown makes it so. If the act is met with disapproval and punishment once, it must always be so met until the attempt is abandoned and the same rule must be applied to some new venture.

Obedience is best taught by example. If parents will keep a close watch upon themselves, will constantly strive toward an ideal and practice unceasingly their own self-control, speaking in quiet, courteous tones, and with expectation of obedience, the child's development will follow along natural lines. The success in child training depends largely upon the parent's attitude toward it. A fretful, irritable mother who repeats her requests or commands several times, who fails to express appreciation of prompt obedience, will develop a nervous, whining, saucy child who never thinks of obeying when first spoken to. To secure obedience, *expect* it. The successful mother knows how to overlook minor offenses which are not real issues and to concentrate her efforts upon real faults. Thus when necessary she has in reserve the voice of authority which is all the more effective because reserved for times of special need.

An attitude of appreciative sympathy and interest will do much to lessen the number of such "special occasions" because between mother and child there is mutual respect and confidence. Restrain the impatient dismissal when he comes and interrupts your work with the familiar appeal, "Oh, mother, see what I can do." "Come look at my engine," etc. The few seconds spent in response to such a request are well spent. The child feels that you consider him and his play or his tasks worth while, he reciprocates by considering you and your instructions worth while. Be a companion in his interests without becoming enslaved to them.

In such an atmosphere threats and bribes will be unknown. Instead of saying, "Jack, if you'll go to the store for me I'll give you a nickel," or, "Come, baby, mother will get you some candy if you're a good baby," assume that they will mind because it is the thing to do. No other possibility is to be considered and the same compensation may be used occasionally as a special treat to be enjoyed, not *if* the command has been obeyed, but as a pleasure that is awaiting the child *when* the task is accomplished.

To carry this through successfully demands that there must be no indecision on the part of the mother. Weak, undecided, wavering commands are responsible for more lack of discipline than any other cause. Children are quick to comprehend conditions, to see when the mother is losing control of herself and the situation. They are keen to see whether resistance is useless or not. One little girl was heard to

say to her playmate, "It's no use to tease mother, she said *no*." A good rule is never to say, "I'll see," or "Maybe." Rather let the answer be "yes" or "no," or "I cannot decide just now. Come to me at such a time and I'll tell you." Children learn to trust people of decision and by example their own powers of decision and judgment are strengthened. On the other hand, let the mother restrain the impulse to form the habit of saying "no," and this consideration and sympathy for the child's desires in granting such as are harmless will be rewarded by a consideration of her wants when upon some special occasion she may wish to impose some additional responsibility upon him.

Never deceive a baby if you expect him to be truthful and honest. Do not bribe him by saying, "This will not hurt you," and then, after he believes you, abuse his confidence by hurting him. If you must hurt him, tell him so, and if you are not going to, tell him so. Be honest with him and you will gain his confidence. Why are children afraid of a doctor? Is it not because of their own experience or that of their playmates they have come to regard him as utterly untrustworthy? How many mothers invite distrust in their babies and offer the example of deceit by stealing away unobserved when the child has objected to being left with others and the mother has apparently promised to remain.

In earliest infancy the child must be taught obedience by habit and example. The commands received are impressed upon him through imitation, by repetition, habit, and example. Later he will question, "Why?" and, whenever consistent, he should be told. He will obey if it seems good that he should, or through love of the one who gives the command, or because through long habit he has learned to obey. For a parent to come to an open rupture with a child is disastrous. There is always a loss of respect, and if through fear a child has learned to obey he will secretly hate his parent. He should do things because he sees why they should be done, and thus train his judgment.

The aim of family discipline is to develop the moral sense. No matter how kind and consistent family discipline may be, until a child freely responds to the laws of its government, authority must be enforced by some kind of punishment. The oldest notion of punishment was retributive in nature and held that the offender should be given the same kind and amount of pain he inflicted on others. Such punishment should certainly not be used in the discipline of children, except occasionally to bring home to a child the meaning of what he has done by repeating it upon himself.

Then there is deterrent punishment—to deter the offender from repeating the offense. Our aim with children is not to protect ourselves from their misdeeds, but to lead them to love and will the best.

Herbert Spencer declares that a form of this deterrent punishment and the only beneficial type is the natural consequence of the child's misdeed, and in many cases this is the most effective medicine. A tardy child may well be left behind when one goes driving, a careless child should be refused such privileges as would give him opportunities for mischief. But in some cases this is not sufficient. A lazy child should not only suffer the parent's disapproval and the loss arising from failure to attain ends worth while, but he should be held firmly to the performance of his assigned tasks. The natural consequence of slovenly table manners is exclusion from the family circle, but frequently this is only amusing to the culprit. A child who is not neat in his personal habits must be required to be clean and orderly.

It is, however, far less important what form of punishment is given a child than what is his attitude toward being punished. If discipline is to be helpful the child's reason must assent to its justice. Here if ever does the parent need to exercise the greatest self-control that the justice of the punishment may stand out clearly before the child, unclouded by any personal feeling of the parent toward the wrong deed. There are cases in which artificial punishment, such as a good, straight infliction of physical pain seems the best remedy for a child's moral condition.

SPECIAL PROBLEMS

LYING

Many children between the ages of seven and fourteen form the habit of telling what is not true. Sometimes this comes merely from an overactive imagination. In such cases they must be brought into contact with reality and held to making the distinction between what actually is and what they fancy.

A large number of children's lies spring from a different cause. The child's play of intellect develops in advance of his consciousness of moral relationship and his love of being true, so he uses his growing wit to get out of unpleasant situations and this is accentuated by the premium parents carelessly put on lying. The habit of stating his case in its best possible light, making excuses that are not true, grows on him until we discover we have a case of undoubted falsehood on our hands. It does not mean, however, what a deliberate lie would mean to us. Some children are saved by a kind of dogged hold on reality, others by a lack of clear foresight and care for consequences; but just those children who are brightest intellectually, unless this quality is balanced by unusual moral strength, are the ones who develop this fault most obstinately. In striving to correct this we must treat the specific misdeeds of the child as less bad than his lying about them, and thus cease putting a premium on lying. We must foster in every way his love of truth that his desire to be real and not a sham may be strengthened. We must do all in our power to help him to see the moral relation he bears to us and to others; to realize what it means to break that relation and thus develop his sense of obligation to be true. We may also insist on exact statement in all matters.

SULLENNESS

This is a trait which is unsurpassed in its blighting effect on the individual and its power to destroy happiness of the home. Dante represents sullen people as sunk in the mud of the river of hell, ever "gurgling in their throats." In this case the natural result, the expression of irritation in those associating with the culprit, serves only to deepen the fault. We should try to waken the child to the beauty of cheerfulness and the joy of being helpful to others. We must appeal to his ambition for self-mastery. We should show him that it unfits him to live happily and helpfully with others. We must treat him with unfailing courtesy and kindness.

Thus in all corrective discipline our central aim must be to waken the positive moral life of the child. He should never be tricked into obedience, but should know that he is obeying because it is right.

REWARDS

The reward which in the nature of things follows good action—joy in the deed, the loving appreciation of those helped by it—is a wonderful quickener of moral life. The warm appreciation of our love for every good act on the part of our children should be expressed in fullest measure. It is rare that a human being can receive too much sunshine in either the physical or moral life. There is a vigorous reaction for making adventitious rewards take the place of the natural, the real. The result of such practice is a flabby, ill-nourished character unable to stand erect and craving an extra stimulant for every action in harmony with law.

THE KINDERGARTEN

THE BEGINNING OF SCHOOL EXPERIENCE

What is the thought that makes the child desire to go to school? Superficially we might say that he wants to go because the other children of his own age go, because he has heard them talk about the interesting things they do there, or because he himself wants to play the kindergarten games and sing the songs. But underneath all other impulses we must acknowledge that the ambition to be like those about him, to be able to read books and understand figures as father and mother do, is the strongest motive of all. For every child seems instinctively conscious that all around him is a great world of knowledge as yet beyond his grasp but none the less his inheritance. And so, faintly realizing his lack of knowledge, the child is half-fearfully desirous of entering any gathering place of children of his own age and experience.

And here it may be well to pause for a definition. What is a kindergarten? Strictly speaking, a child-garden, a sheltered spot guarded from rough winds, open to the sunshine, a place of trained vines, blooming flowers, of freshness and richness and fragrance. That was the original idea in Froebel's mind. To provide for the young human plant the proper conditions for growth and nurture, happy occupations for body, mind, and soul, and an opportunity to learn his first lessons of duty, obedience, kindness, and good will was the aim and end of Froebel's life.

The means by which these first lessons are given are various, but the basis of all is the gifts, occupations, and recreative games first originated by Froebel himself. The child is given no books and checked by no spoken demands, but through a series of progressive activities his mind is awakened to a sense of beauty and a knowledge of what is right. Hands, feet, the whole body, and individual muscles attain definite skill and a readiness to obey the will. Few rules are given, but the eyes and ears are trained to choose by suggestion rather than from order. The child learns to be attentive to what is required of him, to coöperate with others, and to persevere until the assigned task is finished. Thus he enters what has been termed the republic of childhood where each is counted worthy of recognition by the others, and where none is esteemed more highly than the rest except where he has gained greater power to help his associates because of a nobler sense of usefulness.

One other basic principle must be noted—the principle of law. The aim in discipline is to make each child self-governing and at the same time to teach him responsibility toward and dependence upon the community of which he is a part. Whether it comes from over-indulgence under notice or too much prominence at home, the children of today are often nervous, high-strung, pert, or precocious and therefore difficult to control. For them the best discipline is the discipline of the kindergarten, for it teaches calmness, self-control, poise, and a spirit of self-forgetfulness. Lawful, thoughtful activity, together with faith in Froebel's belief that children, if rightly directed, will choose the right, is the basis for training up the thinking, independent, patriotic citizen of tomorrow.

The manner of teaching in the words of Froebel is "From objects to pictures; from pictures to symbols; from symbols to thoughts." "Let us educate the senses," says Seguin. Train the faculty of speech, and the art of receiving, storing, and

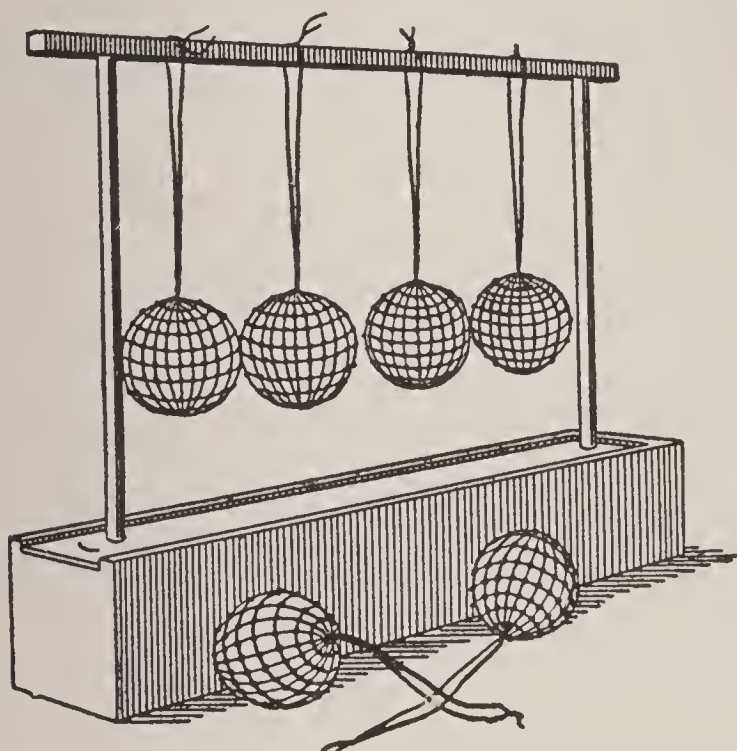


1. The Morning Story. 2. An Outdoor Circle Game.

expressing impressions, which is the natural gift of infants, and we shall not need books until the child is at least seven years old. That the child should learn the use of his senses, that his faculty of speech should be trained, the powers of his heart and mind developed by the study of things about him and their relations to himself before he is introduced to the formal instruction of the schools; in short, that he should deal with things themselves instead of symbols for them—this is the common ground of all great kindergartners. The working out of such a theory for the purpose of practical instruction was long ago accomplished by Froebel. He planned a connected series of objects called gifts which he believed would, if properly used, not only give concrete ideas but lay the foundation for abstract knowledge.

FROEBEL'S FIRST GIFT.

This consists of six soft worsted balls, each having a string by which the child may control the motion of it. These balls are of the six colors found in the rainbow—red, orange, yellow, green, blue, and violet. A standard on which the balls may be suspended, as shown in the illustration, accompanies the gift.



FIRST GIFT

The ball is given to teach, primarily, the leading thoughts of unity, activity, and color. By means of the ball, and the songs and plays adapted to this gift, voice and thought are aroused. Spoken words and rhythmic motions and sounds all emphasize after each lesson the first impressions of unity, form, color, material, motion, direction, and position. Music aids in almost every lesson.

"My ball is round all over," says one child while looking at his first gift. "Mine is just the 'same everywhere,'" crudely expresses the same thought. "When I squeeze mine in, then it isn't a round ball," comments the other. "But is it truly a ball when not perfectly round?" queries the kindergartner after several lessons on this form, which in the meantime the children have modeled in clay or putty with comparative skill. Thus the truth of its one-

ness or unity, its completeness, its perfection of form, is brought home to the child, not by telling him but by encouraging him to tell you.

"My ball is a cherry because it is red," a fairly mature child of four may declare. "Mine is purple, and it is a grape." "See my baby orange." "Here is my green tomato," "My yellow ball is a lemon," adds another who is not trained to see both form and color at the same time. A suggestive question may arouse those who make mistakes of this sort to watch more closely, to see more clearly, to feel more thoroughly the shape of the objects that remind them of the first gift.

The idea of color, beginning with the primary red, blue, or yellow, is re-enforced by painting with water colors or dyes. It is hard for untrained muscles to use the brushes in order to reproduce upon paper the circular form which the untrained eye cannot perfectly picture, for the mental concept is still incomplete. It may seem a waste of paper and paint to those who have forgotten the failure of their own first attempts. For every attempt appreciation is expressed by the kindergartner, who knows the chilling effect of disheartening criticism after a sincere effort to do what is almost impossible.

The possibilities of motion for sphere, the easily gained power of directing that motion or of causing the ball to maintain one position for a time, are watched by the child. These plays give hints of the manner in which the various attractive, well-planned lessons are carried out.

Following the painting with each of the three primary colors comes work with each of the secondary—green, orange, and violet. Can you remember your own sensation of delight when, by combining pure blue with pure yellow, you created for yourself a brilliant green? Have you since felt a repetition of that wonder when watching a yellow sunset cloud float across a stretch of blue? Have you taught your child to look for the same and to understand the law of its origin, or has the little one fresh from kindergarten called you to see this wonder-work in the sky?

Symbol is merely a single word used to express the child's constant request, "Come, let us play that this is something else." The gay ball is allowed to represent a child, an apple, a flower; or, because of its shape, an Easter egg; or, because of its almost lifelike ability to slip away, it is a kitten; yet when held by its string and dropped to the floor, it is little dog Fido, or a toy horse being led away.

THE USE OF THE FIRST GIFT

Now comes the opportunity to use new words: right, left, up, down, near, far, and similar directions; also swinging, hopping, falling, and other names of motions. Songs with lively music suitable to these games make the little ones happy as they unite in sharing with each other the joys that have come with the simple first gift of six colored woolen balls, each of which is a type of perfection.

Before going on more briefly to the other gifts, we may well pause to see where this is leading, what clear conceptions, for example, must the child have before he can understand even so simple a thing as a rubber ball? First such large, general facts as form, color, size, material, direction, position; and later, perhaps, number, weight, dimension, and divisibility. Doubtless the average child, if left free to experiment for himself, would discover all this, but the method of the kindergarten gives him the required knowledge in less time and in an orderly manner. The gifts begin with solids represented at first by woolen balls, then wooden balls, cubes and cylinders, and larger wooden cubes divided in various ways; next surfaces are given, shown by thin tablets and then by lines represented by sticks and metal rings.

The system ends with points, which may be represented by pebbles, shells, or seeds. The material of the gifts is simple enough but the principle at the bottom is important, for the series is so arranged as to give the child all the concepts he needs for understanding the objects in the world about him. Moreover, each is connected with the rest; they are presented in a sequence which begets the habit of seeing things in their real relations as they are in life.

The gifts appeal at once to any child as being the most appropriate playthings. Instinctively he reaches for the smooth surfaces, the bright cardboard, and the shapely geometric figures. This is the result at only a cursory glance; only extended study can tell what these simple objects, if rightly used, can do for the whole being of the child.

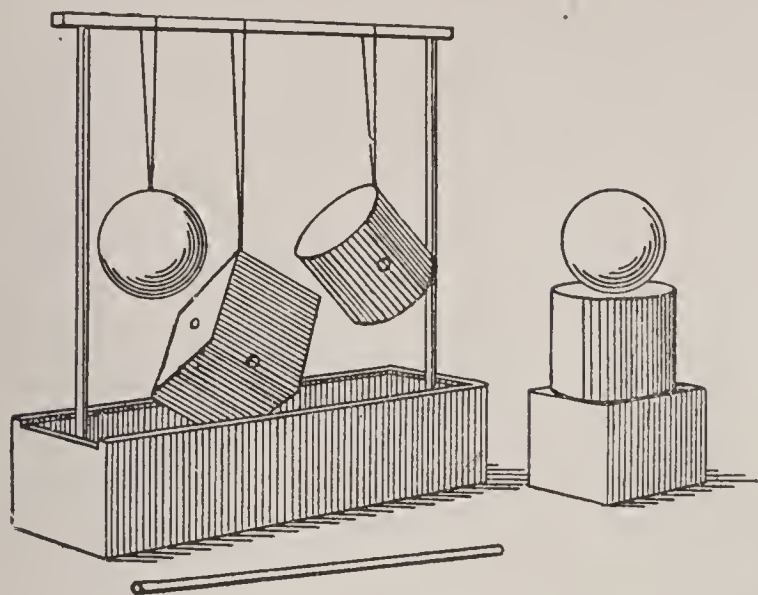
FROEBEL'S SECOND GIFT.

Froebel's second gift consists of the sphere, cube, and cylinder. Each is two inches in diameter, made of wood, and suspended from a standard.

In his first scheme for this second gift Froebel used a doll, which is invariably the second attractive gift in the home. The doll's arms, body, and legs are cylindrical, hence it was changed later to the cylinder, which is more suitable in the sequences that follow. When whirled about in the air by means of a string about its center, the cylinder seems changed to a sphere. Try the same with the cube and it becomes

rounded like a cylinder. They are relatives, even brothers or sisters, in wood. Wonderful transformations are these even in the eyes of older students. To the children it is glimpse into the fairyland where they are living. The cube, the cylinder, and the sphere are now one family, different in shape, yet by means of the magic string proving their relationship.

If a clay marble is added to the end of the cylinder it becomes a doll, which may rest upon a cube for a chair. Crudely this combination represents the base, shaft, and capital of a marble column, and such a combination appropriately marks the grave of Froebel. The cylinder symbolizes extension or growth just as the stalk of a plant.



SECOND GIFT

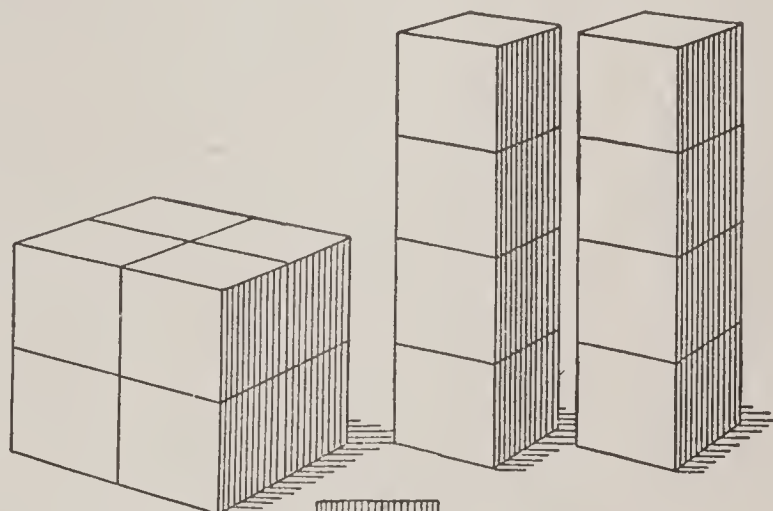
FROEBEL'S THIRD GIFT.

When the time comes for using the third gift, which consists of a two-inch cube, the child has an opportunity to see the inside as well as the surface of the object with which he is to play. For the gift is divided into equal parts as to height, breadth, and thickness, thereby making eight one-inch cubes. Everyone knows the delight of a child in being able to break into any solid or unit.

While he plays the child may for a time become a builder, an inventor, or an artist. Ability to take this gift apart, and later to put together its divisions in some regular form, will satisfy every child's craving to originate, to create something with his own hands. Working with his classmates, he must not borrow blocks from any of them lest his success should prove their undoing. Others have the same right as he to build the complete house, chair, table, bed, or other object form which the teacher dictates, or with a word suggests. By not borrowing each learns to be self-reliant, to work alone, to make the best of what he has and economize his possessions.

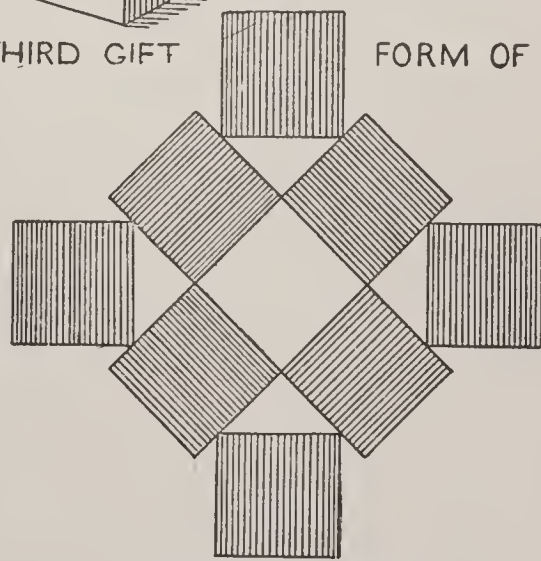
In the third gift, children show again the history of the race. The God-given world had to be changed by man to suit his physical and spiritual needs. In conquering the world about him that he might obtain shelter, food, and clothing, man has grown strong and thoughtful. Active,

well-nourished children, after the first few days of enjoyment of any home gift, resent the complete manufactured toys given them and unwittingly destroy them in a desire to change their form. Invention is a child's right as well as a grown-up's. To prohibit taking apart or putting together is to cause laziness and indifference to work.



THIRD GIFT

FORM OF LIFE



FORM OF BEAUTY

From its foundation the kindergarten has taught the law of activity. Man is of value only as he is enabled to become a useful, productive member of society, and to that end his individuality and power of self-expression must be fostered from the beginning.

Placing the eight blocks one above the other, a tower is built and the little learner realizes that it is tall; rearranging them into a platform, he discovers that it is broad; then, shaping them into a wall, he says "It is long." Thus is gained the idea of the three dimensions.

FROEBEL'S FOURTH GIFT.

This fourth gift is a two-inch solid cube cut into halves vertically and trisected horizontally. Hence there are eight brick-shaped blocks, each two inches long, one half of an inch thick, and one inch wide.

On receiving the fourth gift, the children are led to observe and distinguish the broad, narrow, and short faces or ends. Building games follow in which they play first with the forms of things, often called life-forms because they have something to do with home life. The flat bricks make delightful bureaus, solid desks, or library tables; turned on their narrow sides they shape sofas and other furniture.

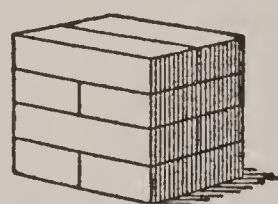
After forms of life come forms of beauty, and then the mathematical forms, or forms of knowledge. Life, Beauty, Knowledge, the three issuing from a cube-shaped group of blocks!

If each block is placed upright on a narrow face, the eight bricks are likely to totter, then fall one after the other. Everyone who has arranged books or dominoes in the same manner knows the fun of any play which teaches the law of transmitted motion or propagation of force. The children always ask, "Why does that happen?"

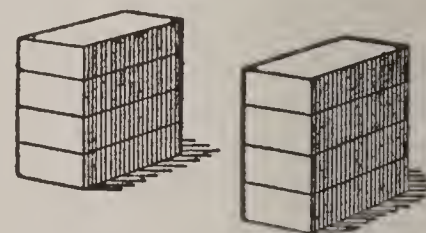
Without answering directly, the kindergartner lets them play the game again and again, until each discovers the "block" which gives the impulse to the other seven and thereby causes all to go down. But no punishment is to be meted out by the little hands to the wooden leader in the downfall, for it simply obeyed a law. There is the opportunity for a story on influence, on the power of every child for good, and it is given at once. The teacher leads the children to ask whether a boy or girl is not stronger than a lifeless block, and able to resist if taught what is right; or it may be that the children may see in this play the idea of prompt obedience to signals, and of quickness in taking unspoken hints. Here, then, is a chance to train the imagination and the moral sense.

FROEBEL'S FIFTH GIFT.

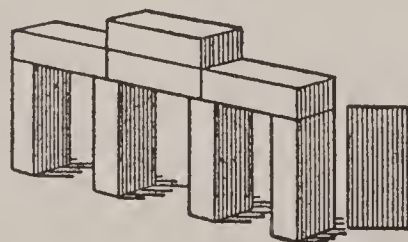
The fifth gift is a natural sequence from those which have preceded. It is a three-inch cube divided evenly twice each way, in length, breadth, and thickness. That makes twenty-seven one-inch cubes, of which three are cut into halves diagonally. Three others are cut into fourths by two diagonal cuts that cross each other. Twenty-seven less six equals twenty-one, which is the number of one-inch cubes



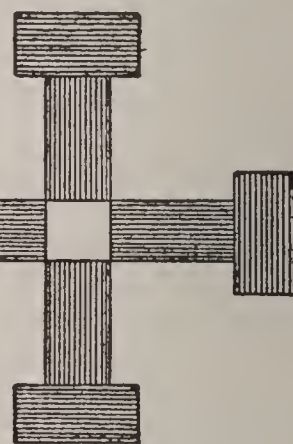
FOURTH GIFT



FORM OF KNOWLEDGE



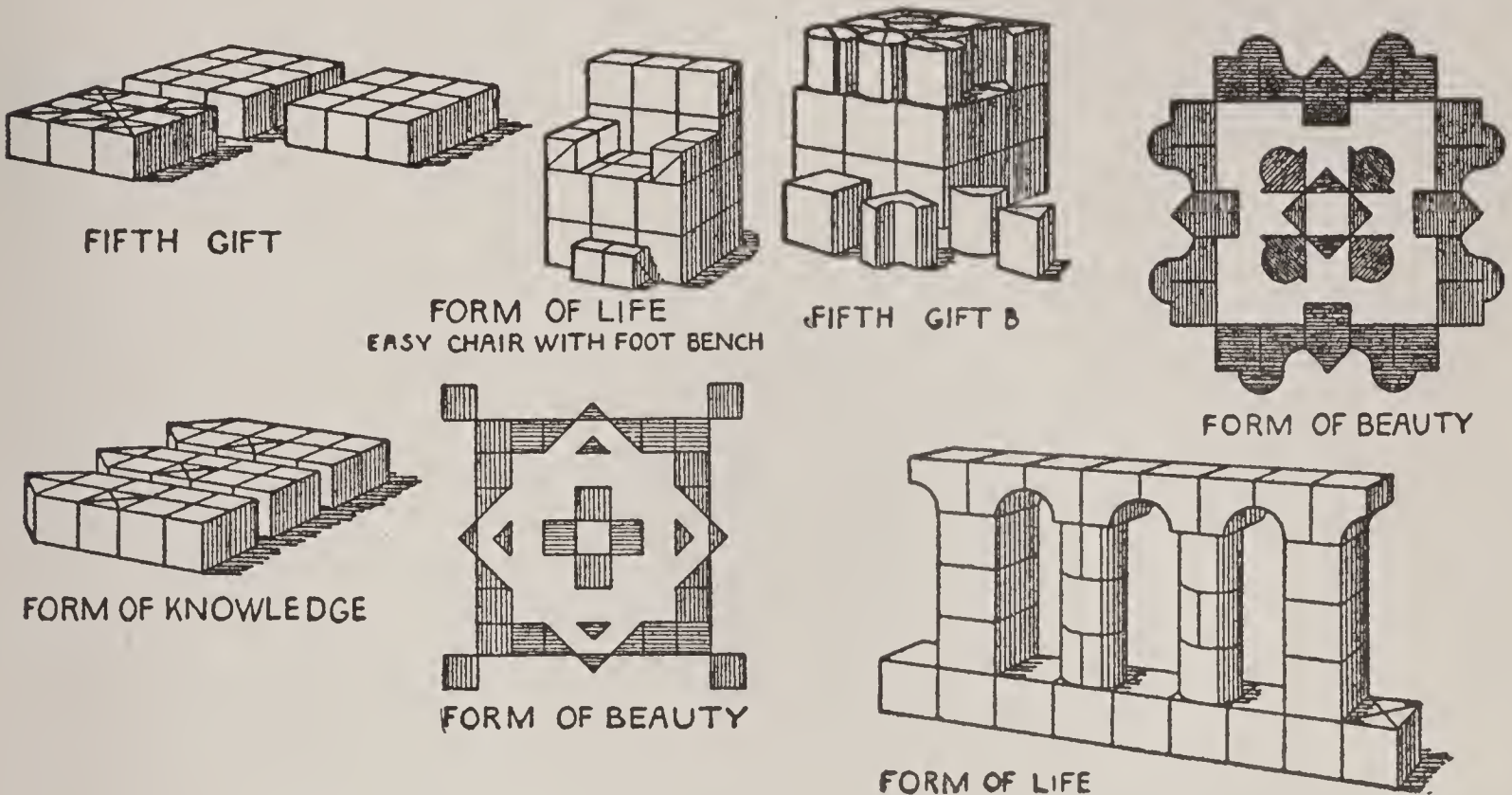
FORM OF LIFE
A CITY GATE



FORM OF BEAUTY

left whole. Twenty-one plus eighteen equals thirty-nine, the total number of the solid shapes in the fifth gift.

Ten different geometrical solid forms are shown in this fifth gift, all of which may be reunited in the one three-inch cube. The triangular forms are the most important changes. Now will come the beginning of lessons in thirds, ninths, and twenty-sevenths.



With slowly progressive observation of form, number, and object in his school life the little student gains much in ideas of order and the fitness of things. He is growing mentally, as will be seen by his ability to select among thirty-nine pieces just what he wants for building purposes. By touch and sight he is growing familiar with forms that enter into the finest architectural designs. Will he forget them? Try him as he passes a noble building anywhere, he will recognize the three-cornered block or triangular prism as an old friend dressed in new material.

THE PURPOSE OF BUILDING GAMES

Excellent carpenter games which combine planning and making houses with the new blocks, give frequent opportunities to teach the correct names for the various parts of his toy dwellings. Let each pupil erect some self-chosen building, whether church, house, or store; then by combination of these a town may be formed with streets, parks, and gardens. If the kindergartner is able to secure a fifth gift that has four times the edge of the ordinary three-inch cube, or one foot in each dimension, then all the children may help to build whatever is planned. By this method each child is made to feel that he has a share in the creative success of the whole class. Dictated work is less free.

Beware of holding the nervous tension for more than a few minutes. It may be that one minute each day will be the longest period of mental strain that the youngest can endure at the first exercise on dictation. Simple directions for the simplest arrangements is the psycho-physiological rule. Later they will grow gradually in nerve power until at five, six, or seven years of age, a healthy child will listen quietly or work steadily for ten or possibly fifteen minutes.

The senses are willing but weak. If they are over-strained, crying and other unpleasant, even unnatural symptoms, will warn you.

FROEBEL'S SIXTH GIFT

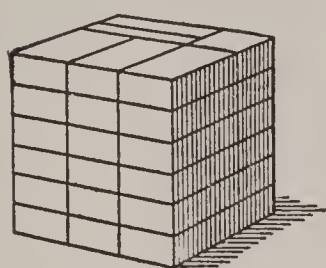
The sixth gift is the last of the solid building-block lessons, and was devised to attract the learners to pictures or actual buildings that are beautiful. Froebel fitted himself for the profession of architect, and many a child has grown into an appreciation of fine architecture from thoughts that originated in the kindergarten.

The sixth gift is a three-inch cube divided regularly into three dozen pieces. One sees in this the possible lessons in number or knowledge that may come easily by grouping. One half, or eighteen of the pieces, are blocks of the same size and shape as those in the fourth gift, hence they are old friends. Twelve pieces are made by cutting six blocks into halves across their breadth. Three other blocks are cut into halves lengthwise, making six square prisms.

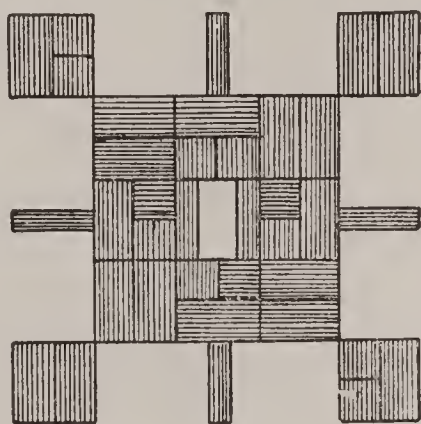
The sixth and seventh gifts are often used together. The latter is a small box

of thin square and circular wooden tablets, one inch in diameter, with others of colored pasteboard of the same size. The colors are the same as in the first gift. The tablets are laid upon the faces of the various solids which they match, or are utilized in the designs called beauty forms. With the seventh is sometimes combined the eighth gift, which is a box carefully made and measured to hold small square colored sticks. Edges are measured by means of these, and straight-line representations or pictures are devised which show the square faces of the cube and the three-cornered faces of the triangle.

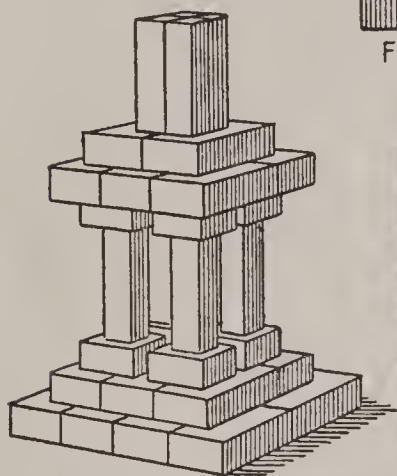
Common toothpicks may be substituted for these in the home. Then will come, probably, a request for well-soaked dried peas, or square bits of cork to use with the toothpicks in molding box-shaped skeleton forms, such as houses and the like.



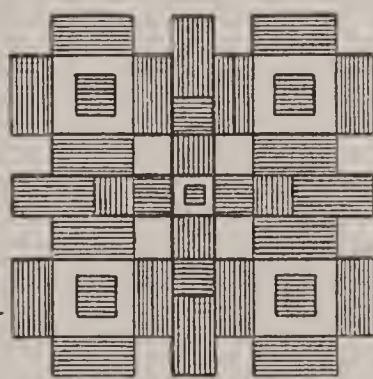
SIXTH GIFT



FORM OF KNOWLEDGE



FORM OF LIFE



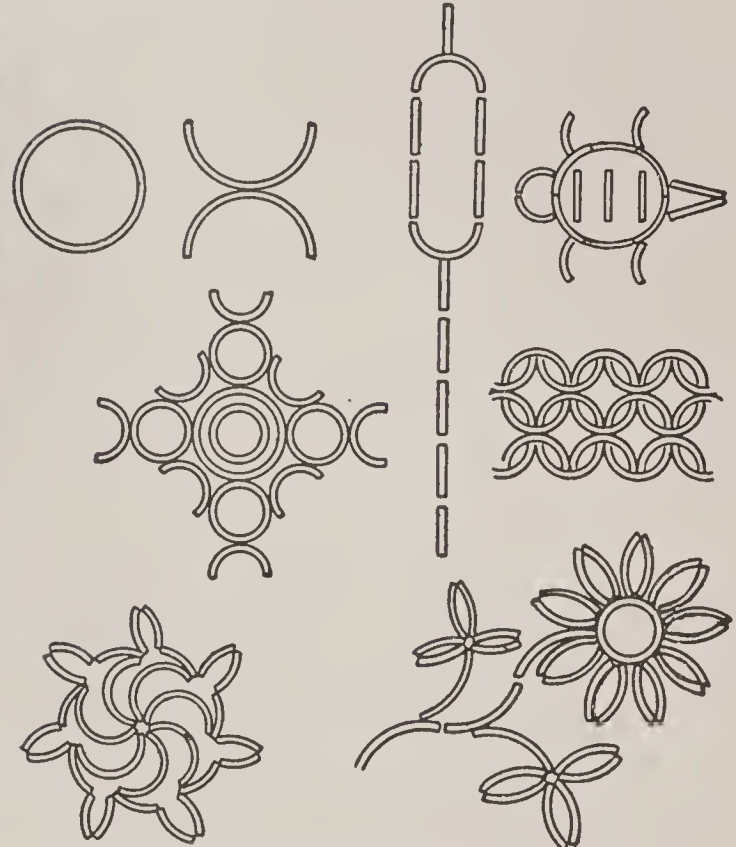
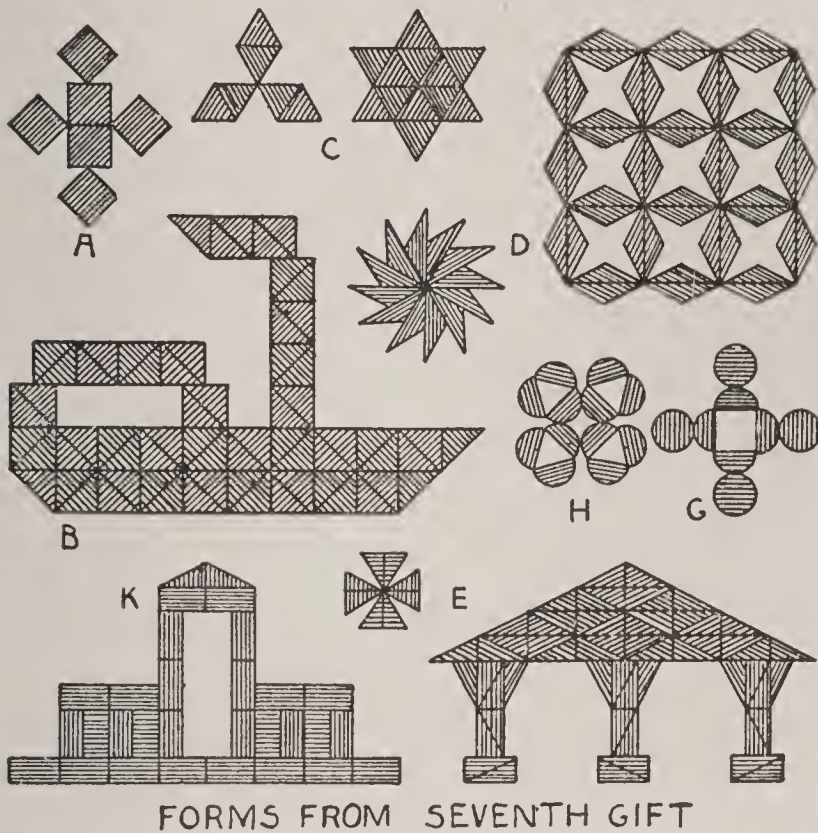
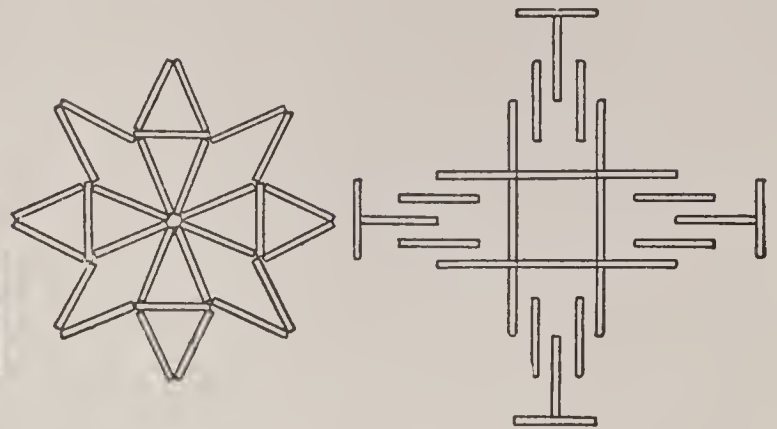
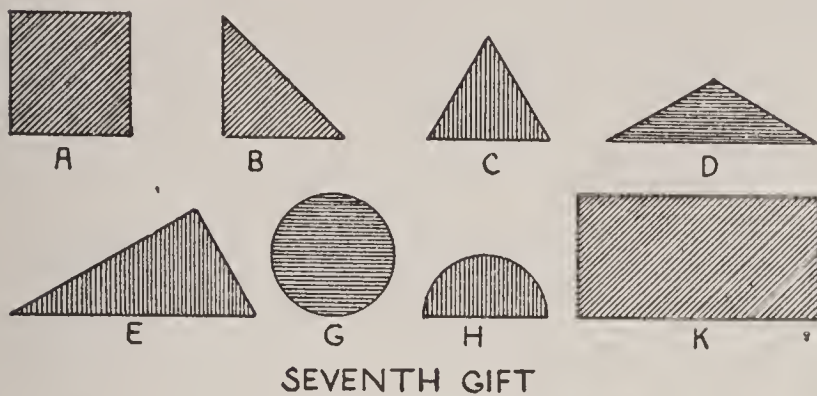
FORM OF BEAUTY

THE NINTH AND TENTH GIFTS

The ninth gift is a delight that is not always postponed till late in the year. This is a box full of rings made of silvered wire, three, two, or one inch across their widest diameter, and many are divided into halves and quarters. Beautiful indeed are the forms children design from these without a hint. To keep them for display and permanent exhibits, these ring designs are duplicated by pasting circular paper tablets of the same size and pattern upon stiff paper. These designs are very practical lessons that may bring money returns from manufacturers who appreciate their artistic values. But that is small reward compared with the joy of creating a thing of beauty which may be given to one whom the child loves.

The tenth and final Froebel gift is the point, which it is impossible to present literally except by using a needle or pin. Small objects such as seeds, tiny bits of clay, and other diminutive things may be arranged at definite spaces along ruled lines on paper, or upon the squares of the kindergarten table. It has been fully established by investigation that the muscles of the fingers do not gain strength and facility until long after the shoulder and arm movements have been developed. Neither are the eyes of children ready for close application, no matter how much

they may enjoy using small needles while stringing shells, seeds, or other objects. Pricking patterns into cardboard has been wisely dropped from the list of kinder-



garten occupations. Such close application is suitable only for full-grown persons, who may delight in the charming results of that tedious operation. Large darning needles, easily threaded and handled for daisy chain making, are not prohibited from use.

KINDERGARTEN OCCUPATIONS

CHAIN MAKING.—With narrow strips of paper of two harmonious colors the youngest children, even on their first day, can busy themselves at chain making with paste and brush. A cold paste made of a spoonful of flour mixed with a little cold water, and used unboiled in a tiny dish, will serve the purpose as well as more expensive mucilage. Toothpicks may be used instead of brushes. In the home these simple supplies, together with strips of daintily colored paper, will give little children many hours of pleasure each week.

Chains and wreaths made of perforated shells, nuts, Indian corn, pine cones, and leaves have been the decorations made and used throughout man's existence on this earth. Flowers twined together, whether clover of the fields or the exquisite carnations used by Hawaiians, are common wherever children or their elders have the leisure to make garlands.

Daisy chains are those in which the large darning needle threaded with gay zephyr or other yarn is first thrust through the center of a circular bit of colored paper one inch in diameter. Next a certain number of straws one inch or two inches

long are threaded before the next daisy paper is added. The straws should be soaked in cold water a short time to prevent their breaking when cut into proper lengths. To the trained hand and eye all this is easy work. To the untrained it is full of disappointment at first, for needle, yarn, papers, and straws will trouble them.

BEAD STRINGING.—Here is another occupation that will be a pleasure to the child at home, although in the kindergarten circle he will learn more of aesthetic combinations of colors and of patterns that others originate. The children are given half-inch wooden beads or woolly balls in the six colors of the first gift, as varied in shape as are the spheres, cubes, and cylinders. Sometimes white or colored glass beads, large or small, are used, the children stringing them upon wire. A long, stout shoestring, with the tin end or tag serving for a threader or needle, is all that is needed for the wooden beads, which will be unthreaded later and kept for future use in the kindergarten.

Never let the five-year-olds use small beads with almost invisible holes for stringing, even at home. Little fingers have no power to pick them up, young eyes must not be allowed to seek the tiny holes in the tantalizing little beauty beads, even with a fine wire. Yet German children, and the wee brown kindergarten workers in Japan are allowed this fascinating play of stringing small glass beads, and then bending the wire chain into shape over paper patterns of outlined leaves and flowers of geometric designs. If blind people become extraordinarily deft in this finger work, it means that they are more mature.

BUSY WORK TILES.—A board six inches square with holes bored into it, one-half inch apart, is to be filled with wooden pegs, red, yellow, blue, orange, green, and violet. Shoepegs bought by the quart may be colored by the mother or the teacher by using dyes. After being taught to arrange the colored pegs in designs or patterns, the child can make for himself a fence about his tile of one color, and this may enclose tiny dolls or animals from a small Noah's ark. Green pegs may be arranged as a tree hedge with red ones for a rose garden, and other flowers will be easily suggested by the colorings.

CARDBOARD SHAPES.—Difficulties will follow after making boxes and other peas-and-stick-work shapes, when copying these in paper or cardboard. If possible, use the printed sheets made in Germany. Let the child who is nearly five years old have a large square hat box made of pasteboard to separate into rooms as it stands on its side. Out of this the little one can construct a home-made or kindergarten-made playhouse. Using the printed pattern sheets, whether made in Germany or at home, let hands used to scissor cutting furnish this four-room house with furniture. Boys and girls working together, or each alone, will cut and glue together the parts as designed, and with a little help may soon furnish a house or set up a whole city by means of these colored printed cards.

CLAY MODELING.—Clay modeling is one of the most valuable and attractive of kindergarten occupations. It is really ideal in many ways for it entails no eye-strain, is pleasant to the touch, responsive to fancy, and lends itself readily to the formation of many objects dear to children—balls, marbles, furniture, fruit, leaves, tea-sets, animals, and vegetables. The more the mother or teacher herself knows about the possibilities of such modeling the greater will be her success, but even a little experience will enable her to give the children much pleasure and teach both herself and them many lessons, for the work grows as one proceeds and new ideas are continually occurring to anyone with even a little ingenuity.

SAND WORK.—"Get back to Mother Earth," is the word given to all who would lead our three-part powers forward to vigor. Let the infants be suitably dressed to enjoy their sand piles, which should be accessible to every home, without fear for their clothing. One load, or better still, three wagon loads of sand, is a veritable paradise for the little ones, and by protecting boards the pile may be kept intact for years.

The sand table is a water-tight box generally about six by three feet and fully one foot deep, filled with clean sand. A dozen little ones can easily play around it at one time. In and out, in a game of hide-and-seek, go the little hands, or with little tin rings they shape cakes and pies for picnics.

Sand work is especially valuable because it provides so many opportunities for united action. The children learn to play at it together, frequently combining their efforts toward some desired end. Moreover it is as delightful for the baby who does nothing more than fill the pail and empty it again, as for the older child who builds houses and castles and lays out relief-maps.

ADDITIONAL GAMES OR OCCUPATIONS

A word more must be said about the pleasures or occupations which belong in no system but are, nevertheless, an essential part of every child's training. Many of them are a part of Froebel's plan, and many have been added by those whose large experience with children has given them a sympathetic knowledge of the habits and joys of childhood.

Froebel, for instance, believed that every child should have a garden; he should cultivate it himself and it should be his own from season to season. Nor should he receive too much dictation as to how he shall plant or arrange it. There is nothing more interesting to a child than the miracle of growth. He watches with delight the stirring of the soil, the growth of the plant, the final fruit, and the seed. And all the lessons that come to the little gardener are of a softening and developing kind. He must be patient with bad weather and watchful of foes; he must provide water, root out weeds, and keep the soil continually loose and rich. If an outdoor garden is out of the question, one can always provide a window-box where the child can grow flowers and vegetables.

Secondly, the care and companionship of animals should be a part of every child's life. Not only should he see animals but he should learn to take care of them and feel responsible for them. If he accepts the charge of a bird, a puppy, or a kitten, let it be understood that he is to let nothing interfere with his care of it. Few childish faults should be so carefully checked and immediately punished as neglect of a dumb animal, for nothing is more likely to develop into a positive vice later.

Still another contribution to the life of a child is made by telling stories. The veriest baby takes pleasure in rhymes and jingles, attracted doubtless by the music of the voice that is repeating them and the regular cadences of sound. Soon the story comes to mean much more, for out of it are evolved the ideals toward which the child unconsciously grows. From the story he forms his notions of pain, joy, heroism, endurance, loyalty, and everything else that opens his heart and quickens his imagination. For a further discussion of this subject see the article on STORY-TELLING.

And lastly, a word about those helpful educational agencies—music and poetry, time and order, love and duty, joy and labor—all in the companionship of other children. To play with a child is a well of joy and a continual rejuvenation to mother and teacher.

CONCLUSION

That the kindergarten has become an established part of our educational system there can be no doubt. Everything in our country is working for it. The greatest impetus of late has been given by the child-study movement in which specialists, teachers, and parents have united. Everywhere women are becoming conscious of their responsibility for the normal, happy development of children, even though they be gathered from the slums and alleys. The kindergarten system is being enlarged and co-ordinated constantly so that on the one hand it may supplement the home, and on the other prepare for systematic training in the school.

THE MONTESSORI METHOD

“Charles W. Eliot of Harvard makes the broad charge against American education that it is training the memory and the powers of analysis but that it is not training the five senses. To this condition Dr. Eliot attributes the fact that the American’s senses are not trained to act with precision, that his habits of thought permit vagueness, obscurity and inaccuracy, and that his spoken or written statement lacks that measured, cautious, candid, simple quality which the scientific spirit fosters and inculcates.”

This most valuable training of the senses is embodied in Dr. Montessori’s system of education which has been so greatly misunderstood by some of our American educators.

Dr. Montessori’s system of education differs from many others in the fact that it is not a simple theory, but a definite system which has been put into practice not only in Rome but in other countries.

Dr. Montessori was the first woman to receive the degree of Doctor of Medicine from the University of Rome. For two years after leaving the university she made a special study of the education of sub-normal children. While working with them she became convinced that the same principles could be applied to the education of normal children with remarkable results. She returned to the university, devoting herself to the study of experimental psychology and carrying out researches in pedagogical anthropology. She spent seven years in this research work, and in 1907 was given the opportunity to try out her theories by the establishment of the first “Casa dei Bambini” in Rome. As a result people began to flock to Rome from such remote countries as India, Japan, and Australia to learn this new method of educating children. Schools have been established with marked success in Switzerland, England, Australia, Spain, and other countries. In America there now are about a hundred schools conducted by teachers trained by Dr. Montessori. Four international training courses have been given: two in Rome in 1913 and 1914 and two in the United States in 1915 at the Panama Pacific Exposition in San Francisco.

Three books on the method have been published by Dr. Montessori: *The Montessori Method*, *The Pedagogical Anthropology*, and *Dr. Montessori’s Own Hand Book*.

Still another book will soon be issued, setting forth the results of further experiments in elementary education. It will contain a description of the elementary didactic material which is even more remarkable than that designed for the younger children.

Dr. Montessori’s aim is to place education on a scientific basis. “Science has hitherto stopped at the welfare of the body, but on the same positive lines science will proceed to direct the development of the intelligence, of character, and of those latent creative forces which lie hidden in the marvelous embryo of man’s spirit.”

Her whole method is based on *voluntary* rather than *forced* attention. “When you have solved the problem of controlling the attention of the child you have solved the entire problem of its education.”

The aim of other methods of education is to attract and hold the attention of

the child. This constant forcing and holding of the attention is extremely fatiguing to the child.

In the Montessori method the activity of the child is respected and our aim is to let the child develop himself, not to force a certain number of facts into his brain. In order to obtain this "voluntary attention," a special didactic apparatus has been obtained. Auto-education becomes possible, for it is in the constant repetition of the various exercises which the child performs voluntarily that auto-education is taking place.

The same object will not hold the voluntary attention of all of the children, so they must be given a freedom of choice in their work, each child choosing that work which corresponds to his inner need. The didactic material permits of an organization of work. "Freedom without organization of work would be useless. The child left free without means of work would go to waste."

The child is gradually prepared and initiated into his work. The material is presented to him in a definite, logical progression; first the simple exercises, then more and more difficult ones as his mind becomes ordered and his intelligence awakens.

Contrary to the prevailing idea that no lessons are given, Dr. Montessori asserts that nothing is too humble to be taught, and most careful and exact lessons are given the children not only in the proper use of the material but in the care of the person, the children being taught to wash, dress, and undress themselves, and in the care of the environment, scrubbing the tables, dusting, sweeping, putting the cupboards in order, setting the tables and serving food. The lessons are individual, concise, and simple, with particular emphasis upon the object to which the teacher wishes to call the attention.

The lesson is divided into three periods: (1) Naming; (2) Recognition; (3) The pronunciation of the word.

In order to teach the names of the colors, red and blue, the teacher chooses the red and blue color spools. Showing the child the red spool she says, "This is *red*," slowly and distinctly emphasizing the word "red." Then showing him the other color: "This is *blue*." To make sure that the child has understood, she says: "Give me the red." "Give me the blue."

She next holds the color up and says: "What is this?" The child replies, "*Red*." "What is this?" The child replies, "*Blue*." And the lesson is ended.

The teacher must become an observer in a truly scientific sense. She must have that infinite patience, love, and faith that the true scientist manifests. She must divest her mind of all preconceptions and be ready for any renunciations. And above all she must have the power to interpret what she sees. Her aim is to direct, not to repress, the efforts of the child, and she must interpret his manifestations so correctly that she sees his need in each separate stage of his development, and helps his psychical and physical awakening. To do this she must understand the technique of her method, a method that follows the natural physiological and psychical development of the child.

Biographical Chart. To record the physical development of the children, Dr. Montessori has prepared a biographical chart in which is recorded the weight, height, chest, head, and body measurements of each child, taken at stated intervals, and also a complete history of his physical development and of his social and moral environment.

Three general divisions may be observed in this system of education:

- I. Motor education.
- II. Sensory education.
- III. Language.

The care and management of the environment afford the principal means of motor education. A set of frames is used to teach the children to button, lace, hook, and tie bows which particularly coördinate the muscles of the hand.

Sensory education and the education in language are provided for by the didactic material. Every detail of this material has been most carefully planned. The size, shape, and color were determined only after years of experimentation. A determined, precise quantity of material is necessary to bring about a spontaneous generalization of ideas. With insufficient material we have no spontaneous generalization; with too much, the activities become dissipated. This holds true also for abstraction.

Sense Education. The didactic material for the education of the senses consists of:

1. Three sets of solid insets shown in the illustration. See Figures 1, 2 and 3.

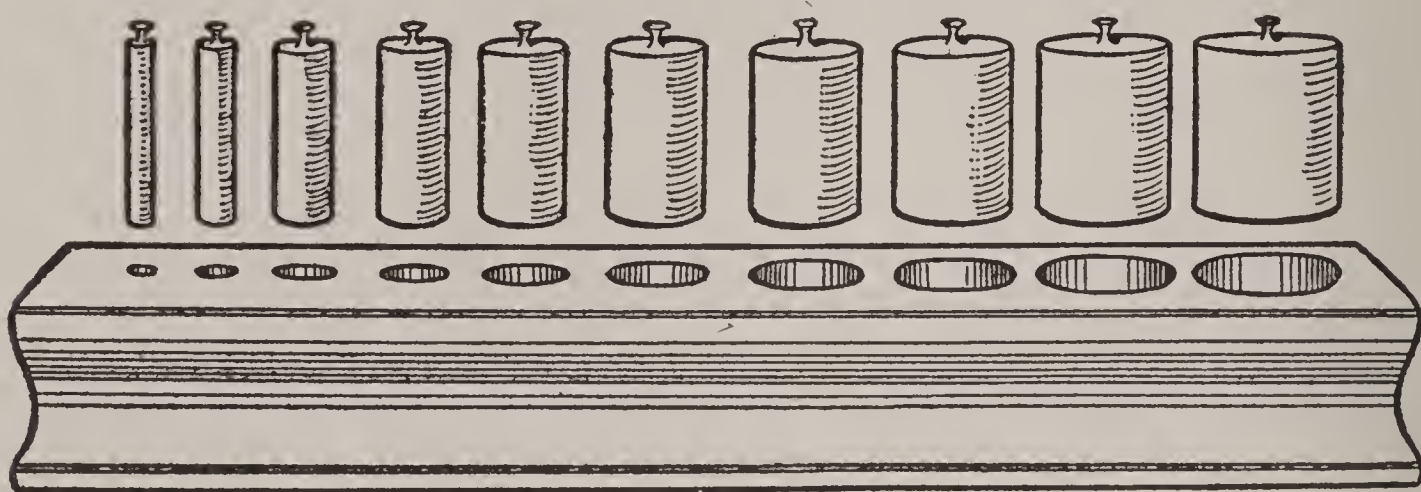


FIG. 1. CYLINDERS DECREASING IN DIAMETER ONLY.

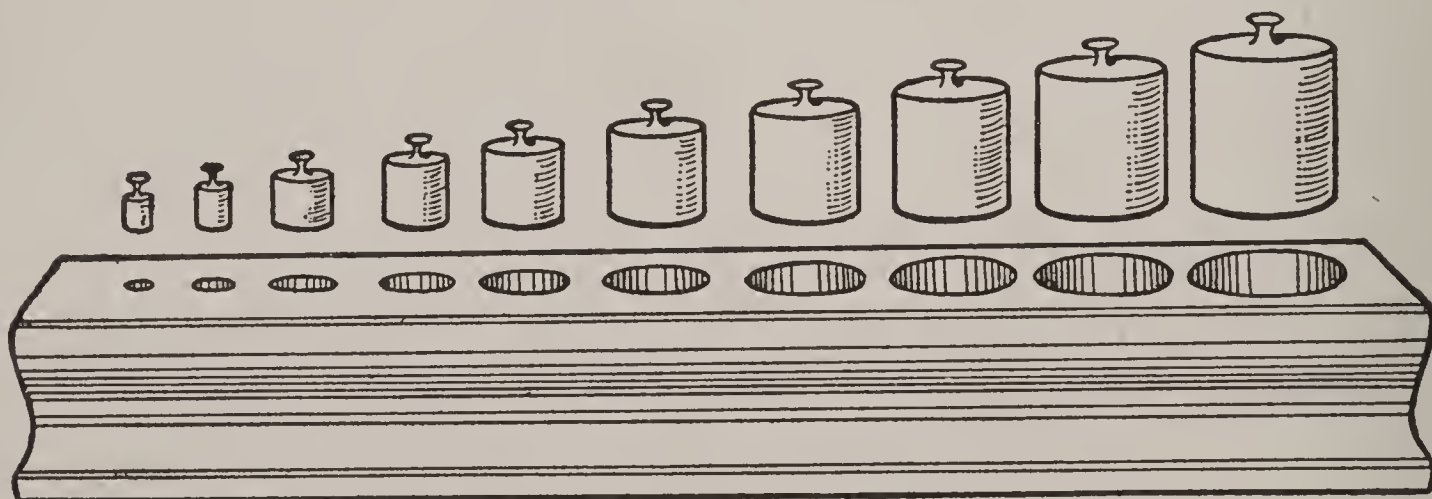


FIG. 2. CYLINDERS DECREASING IN DIAMETER AND HEIGHT.

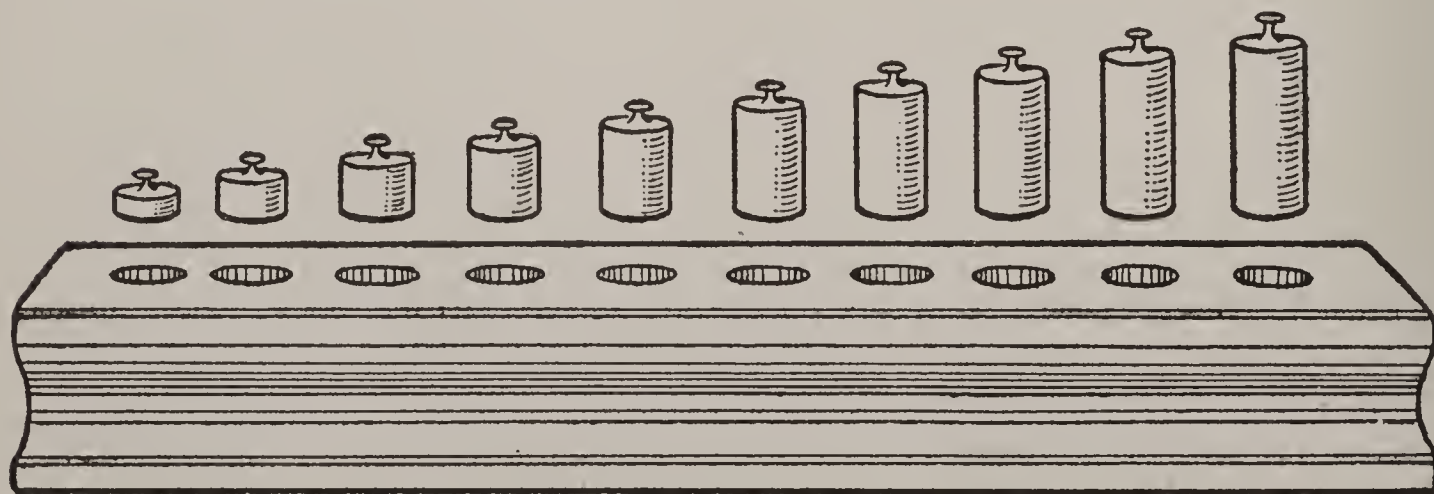


FIG. 3. CYLINDERS DECREASING IN HEIGHT ONLY.

These are three solid pieces of wood in each of which is inserted a row of ten small cylinders, all furnished with a button for a handle. In one set, the cylinders are of the same height but differ in other dimensions. In the second set they decrease in all dimensions. In the third set they all have the same diameter but vary in height. Their purpose is to educate the eye to the difference in dimensions. A control of error lies in the material itself.

II. For further training in dimensions, and for teaching size, thickness, and length, there are three sets of solids: (1) Pink cubes; (2) Blue prisms; (3) Rods colored pink. See Figures 4, 5 and 6.

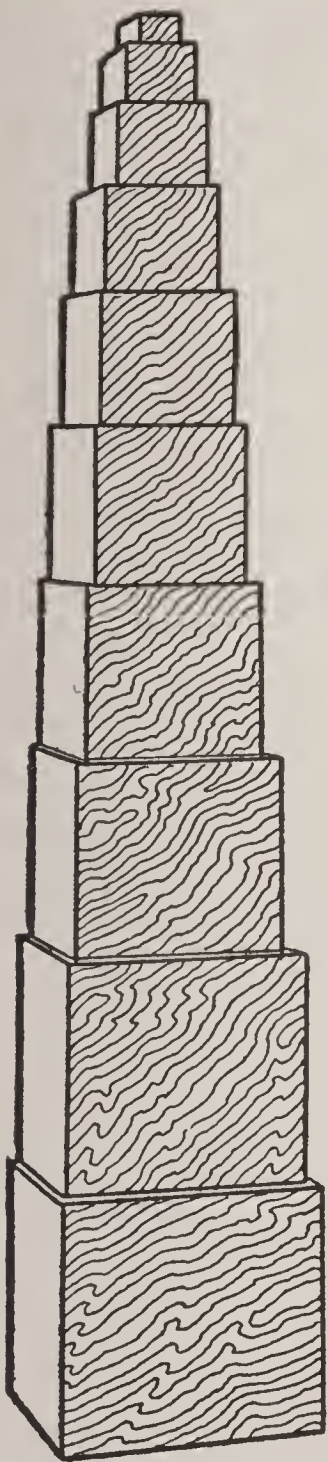


FIG. 4. THE TOWER.

The ten wooden cubes colored pink, the size of the cubes graduating from 10 centimeters to 1 centimeter, the child scatters on a rug and builds a tower.

The ten wooden prisms colored dark blue (length 20 centimeters, square sections from 10 centimeters a side to 1 centimeter a side), the child scatters on a rug, and, beginning with either the thickest or the thinnest, places in their right order of gradation.

The third set consists of ten rods, colored rose pink all of which have the same square section of 4 centimeters a side, but they vary in length from 10 centimeters to 1 meter. The child places them on a rug and then arranges them either from the shortest to the longest or *vice versa*, thus training the eye to difference in length.

III. For the initiatory training of the *tactile sense* there are two rectangular tablets with rough and smooth surfaces. The child washes his hands, then dips his fingers in tepid water to make the finger tips very sensitive. He is taught to touch very lightly first the rough and then the smooth surface. After examining the board with the two contrasting surfaces the child is offered another board of strips of sandpaper of different degrees of roughness.

Following these is a series of stuffs of various kinds—velvets, satins, silks, woolens, cottons, coarse and fine linens, which the child learns to feel and identify.

IV. For the education of the *baric sense* (sense of weight) there are small wooden tablets of differing weights. The child is blindfolded and takes two of the tablets in his hand, letting them rest at the base of his outstretched fingers. He judges their weight and places the heavier tablet on the right and the lighter on the left.

V. For the *chromatic sense* there are two boxes containing 64 colored tablets. Each box contains eight shades of the eight colors—orange, red, yellow, green, purple, blue, gray, and brown.

The first exercise consists in pairing the colors. The child is given at first only three pairs to match, then the number gradually is increased until he can pair perfectly the whole set of 64.

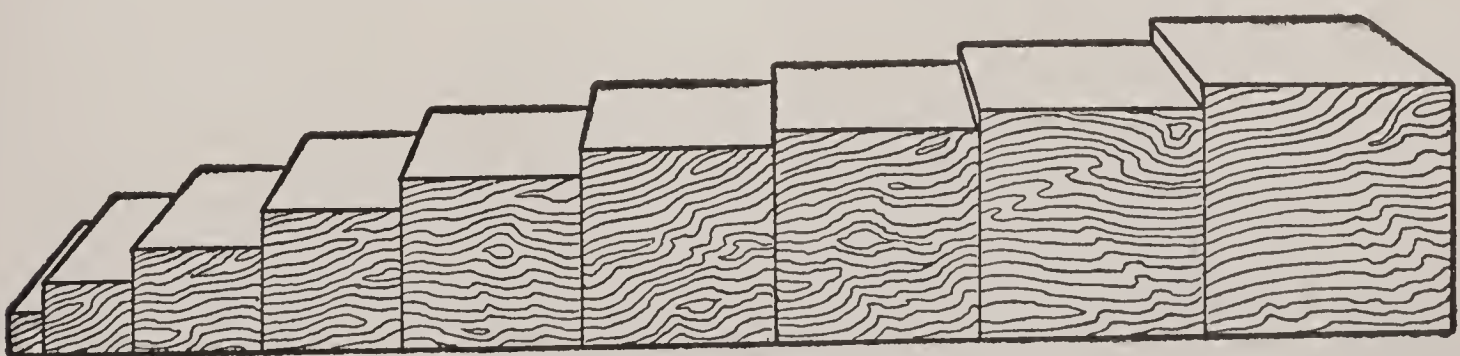


FIG. 5. THE BROAD STAIR.

When he does the pairing correctly he is given the shades of one color only, which he places in order of gradation from the darkest to the lightest, until he becomes very expert in placing all 64 colors in perfect gradation.

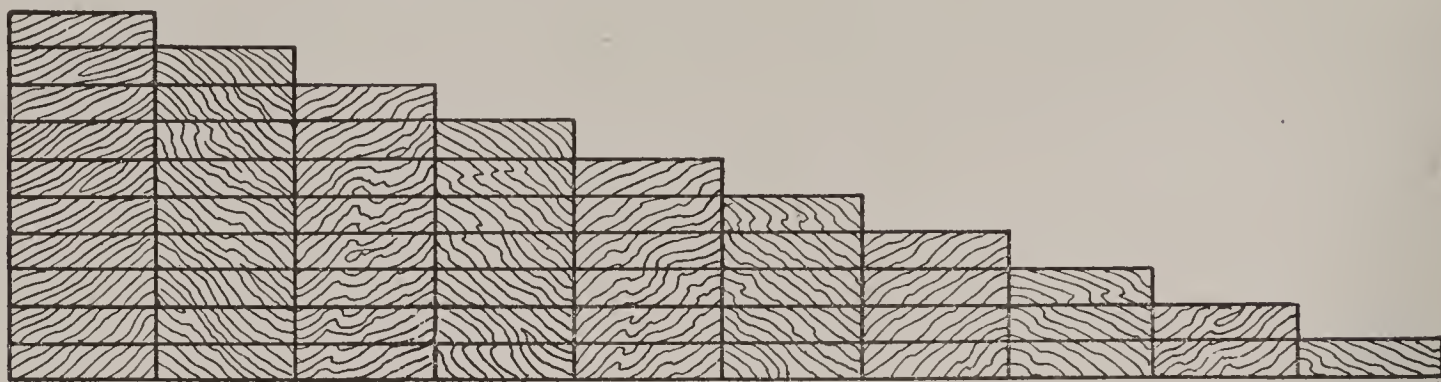


FIG. 6. THE LONG STAIR.

VI. For the recognition of form and further exercise in touching there is a chest of drawers containing drawers of plane geometric insets. See Fig. 7.

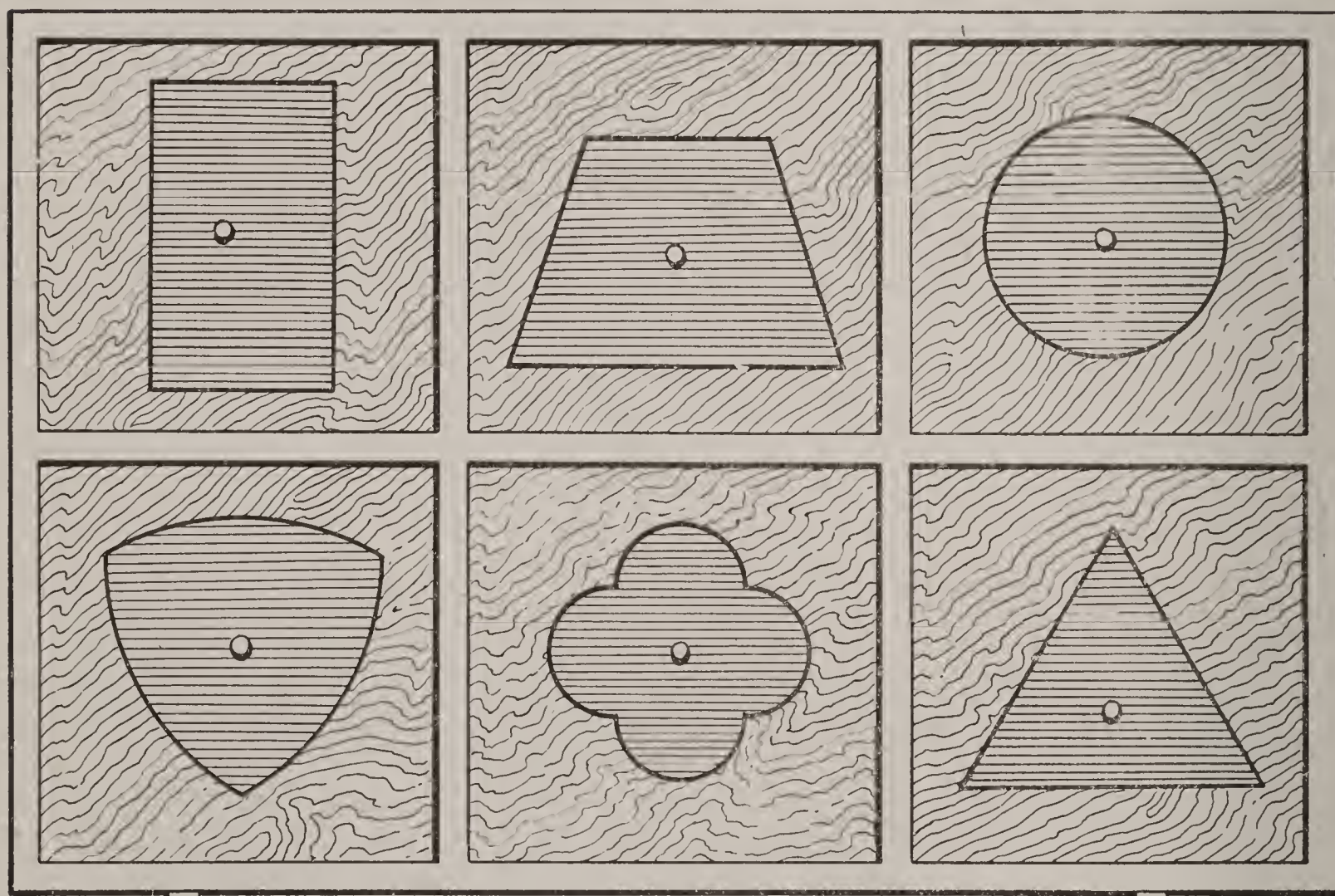


FIG. 7. FRAME TO HOLD GEOMETRICAL INSETS.

Each drawer contains six square wooden frames, each frame having a large geometric figure inserted in the center, colored blue and provided with a small button for a handle.

The figures are arranged in the drawer according to analogy of form.

1. 6 circles decreasing in diameter.
2. Square and 5 rectangles.
3. 6 triangles.
4. 6 regular polygons.
5. Oval, ellipse, rhombus, rhomboid, and trapezoid.

The exercise consists in taking out and replacing these forms. It trains the eye to the recognition of form and helps greatly the sense of touch, for the child learns to

touch the outline of the geometric figures with the tips of his middle and index fingers. This exercise is most important in the development of writing for it is the touching which prepares the hand to trace an enclosed form.

VII. As a further development in form recognition, three series of cards are designed on which are pasted geometric forms in paper. The exercise is to place the insets from the drawers upon these cards—an exercise which leads to a great refinement of the sense of form.

VIII. For the *sense of hearing* there is a collection of twelve cardboard cylinders. When shaken they produce sounds of varying intensity from loud to almost imperceptible sounds. The exercise consists in arranging the cylinders in pairs, according to identity of sound, and then in gradation of sound from loud to soft.

It is well to note here that in all this education of the senses there is a general rule of procedure.

1. Recognition of identities.
2. Recognition of contrasts.
3. Discrimination between objects very similar.

To secure better concentration, isolate the sense as far as possible.

Following the sound boxes a double series of musical bells, forming an octave with tones and semitones, is used. First the child pairs the similar sounds. He strikes do and finds a corresponding do.

Later he learns to place in order the sounds of the musical scale, and continues his study in music with notes and boards specially designed as an introduction to musical reading.

One of the most charming exercises in the school, and a potent factor in sound training, is the "silence."

The children are taught to sit in their chairs maintaining as perfect a silence as possible. Each child is called by name in a whisper and responds to his name by rising very quietly and coming to find the voice that calls him. This demands close attention on the part of the child and a wonderful control of his movements in order to make no noise.

Language. Very careful attention is given to the teaching of exact nomenclature. When the child has recognized the differences between the qualities of objects, the teacher fixes the idea of this quality with a word, as, "large," "small," "thick," or "thin." The child obtains a great accuracy in the use of words.

As a result of this special training his senses have been refined. "His observation of things has been thorough and fundamental. His powers of observation and recognition have greatly increased. His mental images are not a confused medley, but are all classified, forms, distinct from dimensions." All this education is a preparation for the first stages of essential culture—writing, reading and number.

Writing, Reading, Arithmetic. By the various exercises in motor control and sense training the minds and hands of the children are already prepared for writing, and ideas of quantity, identity, difference, and gradation which form the basis of all calculation, have been maturing for a long time in them.

Writing is obtained by the use of sandpaper letters. One letter at a time is presented to the child who is taught to trace, carefully and lightly, the outline of the letter with the middle and index fingers of his right hand, at the same time pronouncing the sound of the letter.

Simultaneous with this process of feeling the letters the hand of the child is prepared to manage a pencil, through the use of the geometrical metal insets shown in the illustration. See figure 8.

The insets, which are of blue metal, each with a small handle, fit into a pink metal frame. The child first takes the frame of the figure he wishes to draw, places

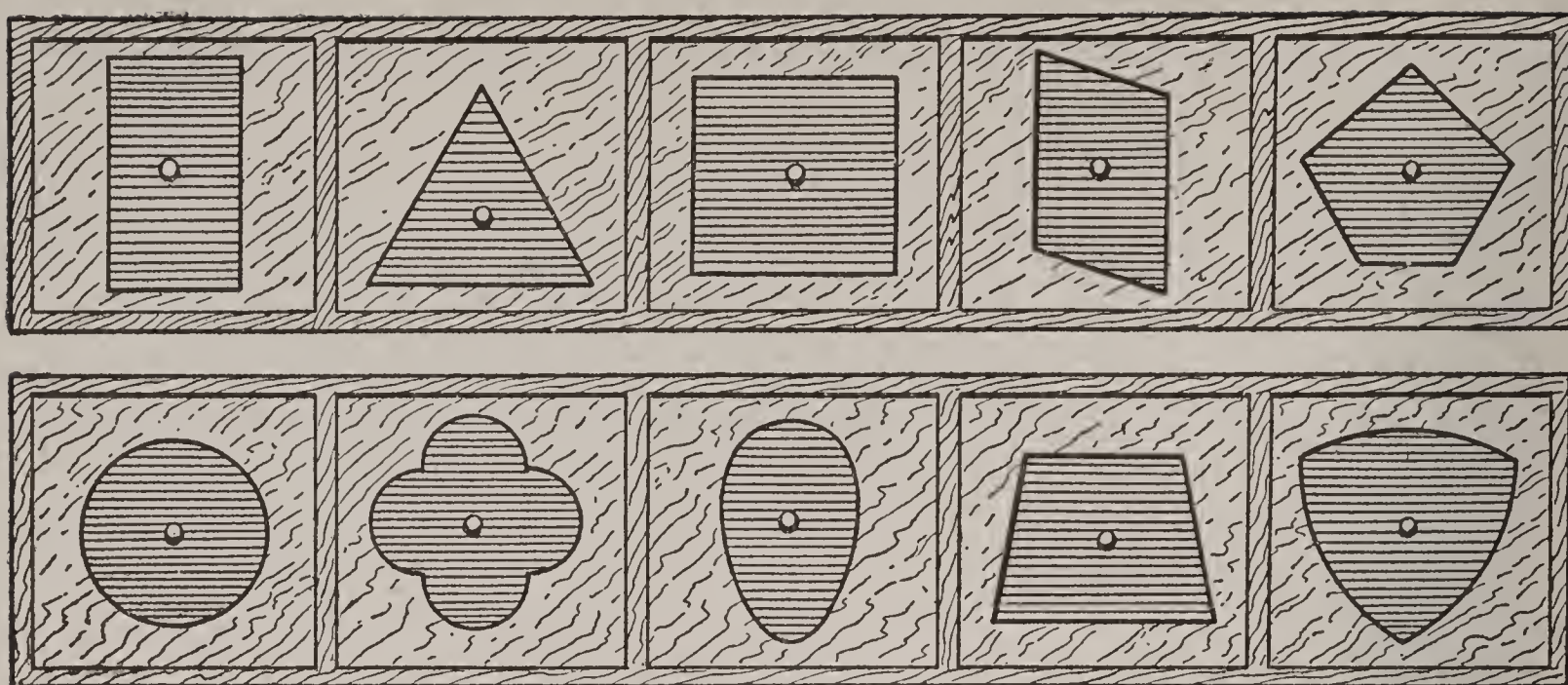


FIG. 8. SLOPING BOARDS TO DISPLAY SET OF METAL INSETS.

it upon a sheet of paper and traces the outline with a colored crayon. He then places the inset exactly on top of the outline he has drawn, and with a different colored crayon draws around the inset. The next step is the filling in of these figures with close parallel strokes. In this process the child is using every stroke necessary for writing as he makes curves and straight lines in tracing the outlines of the different figures. At first the outlines are irregular and the strokes uneven. When they can fill in the figures perfectly they are given simple designs to color. At first simple geometric designs, then designs of flowers, leaves, fruit, animals, landscapes, etc.

The children select their own colors. These designs make an excellent record of the child's progress in observation of color and in the control of his hands.

The combination of these two processes of feeling—the sandpaper letters and the filling in of the designs—results in a spontaneous outburst of writing. The child writes easily and with a perfection unusual in a little child first beginning to write.

Reading and writing come almost simultaneously in this method. The child is given a movable alphabet of pink and blue cardboard letters—the consonants in pink and the vowels or phonograms in blue—with which he composes words as soon as he is familiar with the sounds of the letters.

Owing to the unphonetic character of the English language, it is necessary to use, with the movable alphabet, phonograms and sight words.

We make the phonograms of blue cardboard—at, ell, ing, ot, etc.—and present them to the child in the same way as the letters. The child takes great delight in building words by placing his consonants in front of the phonogram. For instance, he makes words as s-at, f-at, p-at, t-ell, f-ell, s-ell, r-ing, s-ing, br-ing, h-ot, p-ot, l-ot, or combines the phonograms in making words like *un d-er st-and*, *en-t-er-t-ain m-ent*.

We also use word cards for sentence building. The acquisition of words in this way is very rapid and the eagerness and ability of the children to read by themselves is amazing.

Arithmetic. The child's mind is not prepared for number by certain preliminary ideas given in haste by the teacher, but by a gradual acquisition of ideas of quantity, and conceptions of identity and difference.

To enter directly upon the teaching of arithmetic we use the long stair of ten rods, each rod alternately colored red and blue. The one rod is 10 centimetres in length, the two rod twice that, etc., the ten rod being ten times the length of rod one (see figure 5).

When the child is taught to place the rods in their proper order of gradation from 1 to 10, he learns to count on the stair.

We present the first three rods to him, holding up the one rod and saying,

"this is the one rod; this is the two rod; this is the three rod." Then we go through the other two stages of the lesson.

"Give me the one. Give me the three. Give me the two. Count three—1, 2, 3."

"Which rod is this?"

The identification and writing of figures is taught in the same way that the letters are taught. There is a set of sandpaper figures from 1 to 10 arranged on cards. The second exercise with the arithmetic stair is the placing of these number cards on the stair. Each figure is placed upon its corresponding rod, first on the separate rod, then in order of gradation, from 1 to 10.

The processes of addition, subtraction, multiplication, and division can be taught with great success on the arithmetic stair.

For addition, the child puts together all the rods making ten, adding the one rod to the nine rod, the two rod to the eight. He makes the discovery that

$$9+1=10. \quad 8+2=10. \quad 7+3=10. \quad 6+4=10.$$

The children work on the floor with the stair, sometimes laying out the entire set of rods like a long train and counting them. They are left free to make up their own problems after they are shown the initial process and taught the correct signs. Their problems are sometimes as difficult as this, $20 \div 2 + 5 - 3 = 12$.

Two counting boxes, each divided into five compartments, provide the child with another means of counting. He places a number in each compartment and then counts the number of sticks corresponding to that number and places them in the compartment. He realizes the value of 0, for 0 is nothing and nothing is put in the compartment containing the zero.

There are also counting frames containing cards on which are printed numbers from 10 to 90. These numbers are fixed in such a way that the figures from 1 to 9 can be slipped in covering the zero. One slips on the 10 and makes 11, and then we can proceed on up to 101, and even as far as 909.

Rhythm. The foundation of rhythm lies in the walking of the line. Balance must be obtained before rhythm can be established. The children learn to balance by walking a chalk line, elliptical in form, marked on the floor, carefully putting one foot in front of the other as a tight rope walker does. Music is added as soon as sufficient balance is obtained; a very slow march, then more and more complicated rhythms, and finally free interpretations of rhythm are obtained.

Nature Study. As much time as possible is given to nature study, the children tending their own gardens and caring for their pets. A considerable amount of drawing, painting, and clay modeling is done.

Discipline. As the organization of work becomes more perfect and the children more concentrated, discipline establishes itself and obedience comes naturally as a result. The child's disorderly acts become less frequent as he masters himself and a self-discipline is evident.

"Whoever visits a well kept school is struck by the discipline of the children. There are thirty little beings, from three to seven years old, each one intent on his own work: one is going through a sense exercise; one an arithmetical exercise; one is feeling sandpaper letters; still another is composing words. Some are seated at tables, some on rugs on the floor. Every now and then comes a cry of joy—"Miss Edna, come and see what I have done." But as a rule there is entire absorption in the work in hand.

There has been much discussion about the value of the Montessori method for the American child. However, if the American educator would but follow the scientist and lay aside his preconceptions and prejudices and his conceit in his own achievements, and give a fair and unbiased trial to this method, he will take the first step toward giving that scientific spirit to Americans which Dr. Eliot considers so deplorably lacking in our American education.

—Edith R. Little.

READING

Your work as a teacher of reading is not done until you have taught the children three things:

1. How to read.
2. What to read.
3. To read.

In olden times many lived richly and accomplished great deeds without the ability to communicate with their fellowmen by means of written language; but in these modern days the ability to read and to write accurately and fluently is among the necessities of life. Each day civilized man has occasion to look through arbitrary symbols to the thought which marshalled them in some particular array. A glance at the market reports guides him in his business, a reference to the time-table determines the train he will take, the headlines of his newspaper show him what he wishes to read, the chapter from some book gives him just the pleasure or inspiration that he seeks.

In the child's elementary course the most important study is Reading. When he has really learned to read, all the recorded knowledge of the past and present is open to him. Instead of being limited to what his hands reach, his eyes see, his ears hear, all the world, past and present, is his—not only the world of reality but the world of ideals as found in literature. He is free to select his friends from the wise and good.

“Who hath a book
Hath but to read,
And he may be
A king indeed.
His kingdom is
His inglenook.
All this is his
Who hath a book.”

But it makes a world of difference what is read. No book leaves the reader as it found him. Booker T. Washington's *Up from Slavery* leaves one with a greater respect for manual labor. *The Ebb and Flow of the Emigrant Tide*, by Dr. Steiner, rouses one to an appreciation of the great opportunity America has to assimilate the foreigners that come to her shores, and to a recognition of the wonderful changes coming about in Europe as a reflex influence of emigration to America. Mark Twain's *Joan of Arc* inspires a greater admiration for pure womanhood. The *Gulick Hygiene Series* give a more intelligent desire for sanitary conditions and greater pride in individual health. Stevenson's *Dr. Jekyll and Mr. Hyde* impresses the danger of yielding alternately to the conflicting tendencies toward good and evil found in everyone. The reading of George Eliot's *Romola* makes one realize that the slightest deviation from absolute truth is fraught with far reaching consequences for evil.

As to the effect of reading on language, it is easy to know what is being read with interest if one listens to the conversation of the reader. To take an extreme case when “fierce mad on you,” or “from silk” are used, it is evident that it is Myra

Kelly's *Little Citizen* which has been read. After a study of *Snowbound* an attempt to describe a snow scene will show distinctly how sight and speech have been influenced by the reading. Such a book as Howard Pyle's *Robin Hood* has been observed to influence not only the thought and speech of the boys, but even their games. In history we learn how the reading of Marco Polo's travels influenced Columbus in his desire to go to Cathay.

"As a man thinketh in his heart, so is he," and as he reads, so he thinks. Granting that reading, beyond its essential use in the practical affairs of life, is such a powerful element in determining thought, speech, habit, and character, it is of the utmost importance that what is read should be well expressed, and true to the highest ideals of life.

PURPOSE. The purpose of instruction, then, should be to enable the student to interpret the printed page readily and rapidly, and so to cultivate his taste that he will read with pleasure only that which is valuable and worthy. There is grave danger of neglecting the second point, the cultivation of judgment and taste, and giving instead excessive attention to the technical part of the work.

The formation of good taste and sound judgment in literature should be begun in the home before the child enters school. The parents should use exact, rich, and varied language so that the child's acquaintance with words may not be pitifully meager. All the wealth of language and information which the home may aid the child to acquire will help to prepare him for intelligent reading. The child leads with his ceaseless "What? Where? Why?" and the parent should respond truthfully, simply, and clearly to his varied and superficial interests. The child's observations should be widened, deepened, and encouraged, so that he knows the oak from the maple, the dandelion from the buttercup, the robin from the woodpecker. If the parent is open-eyed to the beauties of nature the child may learn to see and enjoy them with him, and will begin the accumulation of nature observations which are essential to the appreciation of the innumerable references to nature so abundant in literature.

The love of rhyme, and rhythm, and pleasing sounds, so necessary to the full enjoyment of great literature, should be cultivated and encouraged by having the little ones learn those classics of childhood, the *Mother Goose Rhymes*, and by reading and reciting beautiful poems to them again and again.

The innate and universal love of story should be met by telling over and over again a limited number of stories which are good in construction, and which have a present and future value to the child—a present value in enjoyment and training and a future value in allusion. The parent or child will refer to the story on appropriate occasions as, when one comes out in some new splendor, the remark, "John is the grandest tiger in the jungle." will recall the delight of Little Black Sambo in his beautiful blue trousers, red coat, green umbrella, and purple shoes with the crimson soles and crimson linings.

When a little one is foolishly cross, quote to him:

"We get out of bed with a frowzly head
And a snarly, yarly voice.
We shiver and scowl, we grunt and we growl
At our bath and our books and our toys;

"And there ought to be a corner for me
(And I know there is one for you)
When we get the hump—
Cameelious hump—
The hump that is black and blue."

Before the rhyme is finished the average child is good humoredly laughing over *How the Camel Got His Hump* and forgetting his own little annoyances.

When the child doesn't want to go to bed, "Are the children all in bed? Now it's eight o'clock," by power of suggestion may send him cheerily along.

"Good night,
Sleep tight,
Wake up bright
In the morning light,
To do what's right
With all your might,"

makes a happy good night.

The allusions to the stories and rhymes which are the common property of the child on the one side and the parents and teachers on the other, like the possession of a common secret, cement their friendship.

WHEN TO READ. The child should early hear the stories which have so gripped the hearts of our great writers that references are made to them in their writings. It is too late to teach the story of *The Babes in the Wood* when the child meets in Lowell's *First Snowfall*,

"I thought of a mound in sweet Auburn,
Where a little white headstone stood,
How the flakes were folding it gently
As did robins the babes in the wood."

It is too late to tell the story of Aladdin when the child comes in *Snowbound* to

"We had read of rare Aladdin's wondrous cave
And to our own his name we gave."

It is too late to tell the story of Jacob when the reader finds in *Evangeline*,

"Wild with the winds of September
Wrestled the trees of the forest, as Jacob of old with the angel."

It is too late for the story of the man sent to spy out the land when the child comes to

"'Tis not the grapes of Eschol that repay
But the high faith that failed not by the way."

These references are of value to the reader only as they illuminate the page by instantly calling up the stories as he knew them in his childhood, trailing with them the pleasurable emotions with which he had received them and the coloring which they have taken on from his childhood thoughts.

WHAT TO READ. Some of the literary points which should guide in the selection are: First, the story should have a definite, attractive beginning; second, everything should be eliminated which does not forward the story. Then, as the child follows the story teller, he is being trained in concentration, in consecutive thinking, in making a point and knowing that it is made, and in unconsciously learning by concrete examples some of the principles of good art. Long descriptions should be avoided, for they do not appeal to the child, but descriptive epithets should be repeated, as is so beautifully exemplified in *The Odyssey*. To illustrate, in the story, *The Stolen Charm*, the furry little fox cub and the fuzzy little puppy remain "the furry little

fox cub" and "the fuzzy little puppy" in telling the story until the furry little fox cub was a grown-up fox and the fuzzy little puppy was a grandmother dog.

The cumulative repetition story of *The-House-that-Jack-Built* type delights the child as does the face of a friend in a strange crowd. It is a relief to his powers of attention. It breaks the story into comprehensible parts. It is the kind of a story most easily retold by the child, and the one the teacher can first use in teaching him to read. It emphasizes the art use of repetition with variation.

The love of good literature should thus be well begun before the child comes to school and the good work started then should be greatly advanced by the primary teacher. She must all the time have before her the ideals—teaching how to read, teaching when to read, and teaching what to read.

Her work begins with the story which she tells and retells until the children are ready to play it and in turn to tell it themselves. The first days she begins with memory gems, perfect in rhyme and rhythm and true to child life and child fancy, and teaching needed lessons in a happy manner.

"Take off your cap and hang it up
Today," the teacher said,
"But don't take off your thinking cap;
Just leave that on your head."

Back of the loaf is the snowy flour,
And back of the flour is the mill;
Back of the mill is the sun and shower,
And the wheat, and the Father's will.

I love little pussy
Her coat is so warm,
And if I don't hurt her
She'll do me no harm.

Who hath seen the wind?
Neither I nor you;
But when the leaves hang trembling,
The wind is passing through.

Who hath seen the wind?
Neither you nor I;
But when the trees bow down their heads
The wind is passing by.

In winter I get up at night
And dress by yellow candle light.
In summer quite the other way,
I have to go to bed by day.

If a lady, on the street,
Or a gentleman I meet,
From my head my cap I take
And a bow like this I make.

These rhymes the teacher repeats to the children, making sure that they understand them, and then drills them until each one can recite them distinctly, with correct expression. This work, in addition to the pleasure it affords and the suggestion for

conduct it carries, trains the children in oral expression, and when these rhymes are used for reading material they know how they should be read. There should be frequent reviews of the memory gems, the first child called upon giving any one he chooses, the next giving a different one, and so on, no child being permitted to recite one which has already been recited during that period. By conversations the teacher learns the interests of the children; by information lessons she increases their knowledge and teaches them the directions which are to guide them in the school-room. Much of all this—the stories, the rhymes, the information, and the directions—will later be material for reading.

METHODS OF TEACHING READING

All teaching of reading should be characterized by simplicity and sincerity. The method will be determined by the end sought. As the most frequent use of the ability to read is in rapid silent reading for information or pleasure, and much of the progress in life is dependent on speed and accuracy, more attention must be given to such instruction. On account of the great speed at which he can read, Theodore Roosevelt in the midst of a busy official career is able to keep himself well informed on current literature. A much more limited use of this power to read is that others may receive benefit or pleasure from the oral expression. Many elements enter into the oral reading which are not essential to rapid silent reading and are even hindrances to it. Oral reading is an additional and a higher art. Ideally in silent reading the reader should look through the combinations of words to the thoughts they symbolize, not consciously noting their forms or sounds. Methods of instruction which impede the gaining of thought are seriously faulty in that they limit the individual's power to advance in culture. If only oral reading is taught, or if too great emphasis is placed upon it, the child becomes conscious of the sounds even when reading silently, thus impeding his speed in grasping the thought. Therefore the first formal step in teaching the child to read is to show him that the chalk may tell him what the teacher wishes him to do just as well as the spoken word. So he is trained to stand, sit, pass, run at the written word just as readily as at the spoken. Day after day the amount which the children can read silently is increased.

PRIMARY READING

Every reading lesson—even from the very first—should have a worthy thought content, couched in good language.

The immediate bearing of the stories and rhymes upon the reading is that they furnish material for reading lessons, and aid the child in expressing what he reads. The more far reaching effect is that they give a motive for reading. The child who loves stories will desire to be able to read them for himself, and he reads not for words but for connected thought. If the stories and rhymes are really excellent ones, the child acquires standards of taste by which to measure what he reads, and those which are inartistic will not appeal to him. Finally, if the right ones have become his, they prepare him for the happy allusions to the classic literature of childhood so abundant in great books.

METHODS

The *Alphabet Method* was based on the idea of thoroughness, and the fact that a child is not really master of a word until he can spell and write it. But there is so little connection between the names of the letters and the sounds of the spoken word that naming the letters is more of a hindrance than a help in getting new words, and the habit of observing the letters impedes the reading. It is only a partial method, as the reader must learn to grasp words, phrases, and sentences as wholes before he can read fluently. All that is good and essential in the alphabet method is retained in the spelling work.

The *Word Method* was a distinct advance, as by that method the word was taught as a whole and was immediately associated with the idea. But again it tended to make necessary the learning of each one of the thousands of words as a distinct act of memory, and failed also in that it trained the reader to give attention to the individual words rather than to the thought of the words in combination. While much more rapid than the A B C method, it was still painfully slow. Yet there are certain unphonetic words which should be taught by the word method, so that, as a partial method, it will always have a place.

The Sentence Method. Then the idea was emphasized that we do not really read until we grasp a complete thought as expressed in a sentence, and it was found that the child would learn to read the sentence as easily as he would the word. So the child began to read with the sentence. It is evident to any thoughtful person that, while this is a very wise beginning, as a method it requires supplementing.

The Concentration Method. Observing how quickly a child learns anything he wishes to know under the impulse of interest, it was suggested by a great teacher that if a word or sentence were written for the child whenever a desire for it arose, that he would unconsciously and gradually master the art of reading. This again is placing the emphasis on a great truth which should be utilized in all education, but which will prove inadequate for a complete system of reading instruction.

The Phonic Method. Each and all of the above methods fail in giving the child independence so that he can go far beyond what is taught him. So another partial process has been evolved called the phonic method. By this system as now taught the child soon learns the sound value of each letter and the pronunciation of common combinations, thus enabling him to make out new words for himself. If this method is used exclusively the danger is that the verbal fluency which it produces will be separated from thinking about what is said.

The Literature Method. This method is merely placing the emphasis on the subject matter by insisting that it should have always a worthy thought content. The method begins with memorizing a rhyme or learning a story and then reading it. In the reading of the selection sentences are picked out first, then phrases, then words. All that is valuable in the sentence method and in the word method is utilized, but the literature method calls for the additional power gained by applied phonics, and in writing and spelling utilizes the elements of value in the A B C method. It is a fusing of all with the emphasis on the getting of connected thought.

BLACKBOARD WORK

Teachers usually talk too much. Sometimes giving directions with the chalk instead of with the spoken word interests the children. It helps greatly in securing a wholesome quiet, and it gives legitimate reading lessons from the first.

The following may be used in connection with morning exercises: The teacher writes on the blackboard; the children read silently and show their understanding by what they do. "Good morning, children." All the children rise and say, "Good morning, Miss A." The teacher writes, "Please close the door, Charles." Charles does so. The teacher writes, "Thank you, Charles." Charles replies, "You are welcome, Miss A." The teacher writes, "Place the flags, Mary." Mary places a tiny flag in the holder on the front of each row in which all the children are present.

In preparation for a painting lesson, the teacher writes and the children read quickly and quietly:

"Take your paint brush."

"Take your paint box."

"Take your paint cup."

"Leaders, stand." They then pass paper and rags.

"Please pass the water, Alden."

"Thank you, Alden." Alden replies, "You are welcome, Miss A."

From their out of doors study of trees the children have brought in leaves from the trees studied. The teacher has printed on heavy strips of manila such sentences as, "Find a maple leaf," "Bring me a poplar leaf," etc. As the teacher holds up one of the sentences, the children glance at it and then one of the children shows that she has found the leaf desired by holding up the maple leaf, or the teacher holds up, "Bring me a poplar leaf," and that is done.

SEAT WORK

Directions for seat work are written on the board for the half day:

1. Dress dolls.
2. Make a purple border.
3. Study spelling.
4. Play "Match."
5. Build spelling words.

When it is time for seat work the teacher says on the blackboard, "A Class, 5," "B Class, 4," and the children glance at the blackboard and do what is required.

"Study spelling" means to write each word twice.

"Match" is a game which helps them to learn new words. In their desk they have an envelope containing several pieces of cardboard on which is pasted a picture, as of a hen, a dog, a duck, a turkey, or other familiar object. Just below the picture is the name of the object written in a good round hand, and on two or three other slips the same word without the picture. The child places the pictures in a row across the top of his desk and then places the words below the pictures with which they belong. At inspection time (which should follow every period of seat work) the teacher at a glance sees that no mistakes have been made, and then she says, "Put pictures in envelope." Then she points to any word on the first desk and the child quickly tells what it is, and so on around the class. After one such lesson they know that they must think the words, and they thus happily teach themselves many object words while quietly playing the game.

This is suggestive of innumerable ways in which silent reading may be utilized to forward the work instead of using exercises devised merely for drill.

PHONICS

In phonics the initial sound is first taught. For example, if the child doesn't know the word *hen* after it has been taught as a whole, he is guided by the H-sound to find it. After a while the words beginning with *h* accumulate, and it is necessary that he be taught to look beyond the *h*. So now he must look into the word, and he sounds *h e n*. But that becomes a disconnected process, especially in long words, so *en* is taught as a "helper" and many other combinations, as *at*, *ought*, *ing*, *ay*, *oi* are taught as the new words require them. This combination, called a helper, is placed upon the board, referred to from time to time, and daily drills given until the combination instantly suggests the sound to the child.

In a phonic lesson a helper, as *en*, is placed upon the board, and the children come up one at a time and write words containing that helper, as *pen*, *ten*, *hen*, *den*. When several have been written the children choose four which they would like to write in their phonic books. Then the work on the board is erased and the children write their words from memory in their phonic books. In this work the children should habitually use the words in sentences so they may not form the habit of using words without ideas.

Phonic Game. Phonograms are placed on the blackboard. Mary shuts her eyes, while John points to a phonogram. Then Mary opens her eyes, takes the pointer and touching *h*, says "Is it *h*?" giving the sound, not the name.

Class: "It is not *h*, Mary."

Mary: "Is it *ing*?"

Class: "No, Mary ; it is not *ing*."

Mary: "Is it *k*?"

Class: "Yes, Mary ; it is *k*."

If after three guesses she does not find the letter the class says, "It is *n*." Then Mary runs and touches *n*, saying its sound.

Expression. The teacher should be assured that the child is ready to read the sentence before he is permitted to attempt it. Then the right motive should be given the child for saying it. The questions and remarks of the teacher should all help in this respect. If it is a question the child is reading, it is sometimes well to have him ask another child and have that child reply.

DRAMATIZING

Beginning with the first grade, the universal impulse to act out whatever grips the imagination should be utilized to make vivid the story. As the purpose is to get at the children's ideas of the story and lead them to read more purposefully, the dramatizing should not be too much directed. Just enough of suggestion should be given to make it go. After the dramatizing the children return to the reading with clearer pictures and more feeling, and are ready to read with more adequate expression. The teacher should conscientiously avoid making "show-off" work of the dramatizing. The more simple and unconscious the children are in the work the greater the educational value.

INTERMEDIATE GRADES

The work begun in the first grade should be definitely continued and advanced in the succeeding grades. In the early grades the memory gems are still taught orally. In the upper grades they are written upon the blackboard to be memorized. The story work is continued with stories appropriate to the child's development, and the finer points in the art of telling brought out. In phonics the drill should be kept up on what has been taught in the first grade, and the knowledge acquired utilized in pronouncing new words. At the end of the fourth grade the children should know all the sounds of the letters, their names, and their diacritical markings. In the fifth grade work with the dictionary should be begun with definite instruction in finding words, making out pronunciations, and selecting definitions which fit the text. In the later grades some illuminating lessons in etymological meanings should be given, and drill on some of the simpler rules of pronunciation.

Children will sometimes manifest great readiness in making out new words if there is only some slight difficulty to be overcome, and then seem utterly helpless with a dictionary or with a vocabulary pronunciation of some word of foreign derivation which is quite different from the spelling. Flexibility and power will be increased by drill in pronouncing the syllables, beginning with the last, before attempting the word as a whole. Thus, in *di vid' u al' i ty* is read *ty i al' u vid' di in*. Another aid to the development of power is in occasionally giving combinations to pronounce which are not really words, as *zome*, *zomat'ic*, *glaim'et*, 1 2' 3 4. Children thus trained will be surer in their interpretation of pronunciations when consulting the dictionary, and they will not show the inflexibility in placing accents which is so distressing and difficult to overcome.

The children should be made as independent as possible, but they should not be sent to the dictionary for a large number of words in a lesson, either for pronunciation or for definitions. When a child has difficulty with a word the sympathetic and attentive teacher knows by intuition just what help to give, as "Italian *a*," "hard *g*," "accent on the second syllable," and she gives just the help needed, no more, no less.

Certain common errors call for special drill on lists of words, as:

1. *in* for *ing*, as in writing, thinking, saying, etc.
2. *oo* for *u*, as in Tuesday, news, abuse, fuse, etc.

3. Short *a* for short Italian *a*, as in ask, task, grass, lath, etc.
4. Caret *u* for tilde *e*, as in er, her, girl, berth, fir, etc.
5. Certain individual words habitually mispronounced, as *catch*, *recess*, *primary*, *just*, *every*, *February*.

Pride in pronunciation is most desirable. But what is attempted in the school is often a failure because of the ridicule in the home. So, if the sympathy and coöperation of the home can be secured, results for good will be more than doubled. This can sometimes be gained by saying to the parents, "We are trying to correct ourselves of saying ketch for catch," or whatever the word is, and if the parent is wise he will aid in every way, even though "ketch" has served his turn for half a century.

SILENT READING

As already illustrated, much is made of silent reading in the first work; in fact, silent reading is made to precede all oral reading, so that a child does not attempt to speak without knowing what he is to say. But definite drills should be given all through the grades. To illustrate: The children read silently to get the story so that they may tell it. In the reading lesson the teacher asks questions and the pupils read silently until they find the answer. They read to determine some disputed or obscure point. They read to find the main point in a paragraph.

A careful discrimination should be made between information reading (which should always be read silently) and selections from the "literature of power," which can be fully enjoyed only when all the charm of phrasing, of sounds, of rhymes, of rhythm, of varied periods, is brought out in oral reading. As a sound is not a sound unless there is the ear to hear it, so a poem is not poetry until its beauties of sound as well as of thought are expressed by the human voice. The material used for the reading lessons should be entirely from pure literature, and the crowning result should be to read well orally the selection which has been so opened up to them by the study that they really enjoy it.

The preparation of nearly every lesson from arithmetic to history calls for more or less silent reading, and in teaching the children how to study these lessons the teacher is giving them invaluable instruction in reading. She writes upon the board a question, "How did the first settlement at Plymouth differ from that at Jamestown?" and the children read and reorganize their material to meet this new point of view. Or she writes a series of questions covering a topic to be studied, or an outline. Again a page is assigned and the children read to make their own outline, or list of questions, or to determine the most important point treated. Only as the children are trained to read rapidly and purposefully are they really being developed into students. If unguided, many will memorize words and think they are studying.

EXPRESSION IN READING

The great effort in silent reading should be directed to aiding the pupils to get the thought of the selection clearly. The pupil may understand all the individual words clearly and yet be far from grasping the thought as expressed by their combination. But the pupil may clearly understand the ideas and yet fail to read well orally. He must not only understand what he reads; he must re-think the thought at the moment of speaking it and have the right motive for saying it, so that his audience may understand what he says, and feel as he feels about it.

How can the teacher know that the pupil is holding the thought at the moment of speaking and has the right motive for his reading? By the phrasing, time, inflection, emphasis, directness, and voice. It will be possible only for the teacher well prepared for the lesson and with a quick ear and a real knowledge of psychology to detect instantly just what is wrong and why.

Phrasing. Because we think in more or less complete ideas, our speech is broken into corresponding phrase. The reader's phrasing shows how nearly his interpreta-

tion coincides with the author's thoughts. To illustrate: *The Boy of Ratisbon* offers to the careless reader many opportunities for blundering in phrasing. "Just as perhaps he mused, 'My plans that soar to earth must fall,' " is a common reading. If the reader is asked, "What does *soar* mean?" he sees that his reading was inexcusable. Again in the familiar rendering "'Well,' cried he, 'Emperor, by God's grace we've got you Ratisbon,' " the punctuation renders the reading impossible to the observant reader and the teacher can ask according to the grade studying the poem, "What does 'by God's grace' modify?" or "To what does 'by God's grace' belong?" "What is Ratisbon?" The most common fault in phrasing is closing the thought before the unit of thought has been expressed. The teacher then asks, "Is that all you ought to say?" By holding the thought clearly and fully herself, she is ready for a sympathetic recognition of the reason for the child's failure.

One point which the teacher should understand clearly is that pauses in reading and from punctuation marks do not coincide. The reader should pass rapidly over many a comma without pausing, and make many pauses where there are no marks of punctuation. "'Yes, sir,' I said," calls for no pause after "Yes." "Ye who believe in affection that hōpes, and endures, and is patient," and "List to the mournful traditions still sung by the pines of the forest," call for pauses where there are no punctuation marks.

The teacher should not tell a child where to phrase a selection. The child's phrasing is one of the evidences of how he is thinking, and the thinking is what needs correcting. He can change his phrasing by imitation or by direction without changing his conception of the ideas one whit. His phrasing and the length of the pause depend upon the thought and the desire to impress it upon his hearer, to give time to meditate upon what has been said, and to prepare the mind for what is to follow.

Time. When the child is master of the ideas, the rate at which he reads is a clear indication of his judgment as to the importance of what he is reading. If he reads too slowly he is overimpressed with the importance of the thought. Questions and condensed paraphrasing will help to correct the error.

If the child reads too rapidly, as is generally the case, it is because he is not sufficiently impressed with the importance of the thought at the moment of speaking. Expansive paraphrasing, questions, and illustrations are needed to better his estimate of the thought.

Never tell a child to read faster or slower. Give help as intelligently as when teaching arithmetic. The teacher is there to teach and should not forget how greatly she is helped by hearing clear explanations of a piece of literature and good oral interpretation, and she should not demand too much of the pupils.

Inflections. Vocal punctuation is independent of grammatical punctuation. The voice does not necessarily rise at commas and fall at periods. Rules for inflection are valueless. The inflection indicates the motive the speaker has in using that particular combination of words, and if the inflection is wrong the motive must be changed. The teacher should clearly understand the significance of the inflections used. The rising inflection indicates incompleteness. It is used when the mind is looking forward to what is to follow, as in subordination or anticipation; in the absence of a desire to assert strongly because what is said is trite, repetitious, or unimportant; in uncertainty, doubt, appeal, entreaty, confusion, or hesitation; and in direct questions.

Falling inflection indicates completeness. It is used to express finality when the mind is asserting strongly that of which it is certain, when giving definite conclusions, and for momentary completeness when any word, phrase, or clause calls for a separate affirmation.

Circumflex inflection indicates a double motive.

Never tell a child to use a certain inflection. His inflection tells you his motive; lead him to determine the author's motive. He can change his inflection by imita-

tion or direction without changing his thought (as previously stated), but that is valueless. If there are foreign pupils who make excessive use of the rising inflection, the teacher must carefully avoid calling attention to it before the school, for it is as contagious as the measles. But in private work, by imitation and direction, the child can be taught to think and speak without constantly raising the voice at the end of his sentences.

Emphasis. Emphasis is any way of making clear the central idea, as by time, by inflection, by force, or by any combination of these means of expression. Absence of emphasis indicates lack of discrimination. Condensed paraphrasing helps to show what is the most important part of the sentence. If lack of emphasis is habitual in the speech of the child, individual and private drill on sentences which call for strong emphasis will be helpful.

If the emphasis is misplaced it may be merely haphazard. This calls for a more thoughtful study of the text. If it is the result of a wrong interpretation, question for the author's meaning.

Emotions. The emotional effect is the highest and most important consideration in a piece of literature. Great care should be exercised to choose selections which are within the children's ability to feel and express.

To secure correct expression, first lead the children to make the thought their own, and to let their imagination dwell upon it. Encourage them to show how they feel about what they read. This may be done by eliminating discouraging criticisms and being a sympathetic and attentive listener when they read. By using dramatization and by changing conversation into dialogues, the children will be helped in emotional expression as well as in comprehension. Finally, as no one will surpass his ideals, the teacher should present good models of reading. For, after all, nothing else is so effective as example.

The Voice. Few teachers can venture to give voice training. But each teacher should seek to have her own voice neither loud and harsh, nor so low and monotonous as to be heard with difficulty. Her tone should be vital, varied and expressive.

In the desire to be natural, readers often give great emotional ideas in a commonplace voice. It must be clearly recognized that great lines, like

"Thou, too, sail on, O Ship of State,
Sail on, O Union, strong and great,"

are spoken in an exalted mood and call for richness and fullness of tone. Really thinking noble and elevated thoughts and yielding one's self to the emotions which accompany them tends to give the voice significance and beauty.

THE READING LESSON

Selection. The lesson selected should be within the child's best efforts as to thought, emotion, and language. From the reader select the lessons with a definite purpose. They should be timely. *October's Bright Blue Weather* should come early in October that all the rest of the month may be glorying in its beauties. Dickens' *Christmas Carol* should be studied some weeks before Christmas that the children may be inspired to think of Christmas "as a good time, a kind, forgiving time," etc. *The Elves and the Shoemakers* fits in with Hallowe'en, suggesting to the children that their fun may just as well be conducive of pleasure to others as of discomfort. Tennyson's *The Charge of the Light Brigade* and Taylor's *The Song in the Camp* go together historically. When a method of study is being emphasized, as in teaching analysis of poems, similes, metaphors, subjects of paragraphs, dramatizing, or characteristics of an author, several lessons should be given until it becomes to the child a method of attack.

Teacher's Preparation. Before a reading lesson is assigned to the class the teacher needs to be ready to teach it. Her preparation will include mastery of

1. The phraseology.
2. All allusions.
3. The purpose for which the selection was written.
4. The construction.
5. The points in which it is great and good.

She must also study the selection until it appeals strongly to her. And lastly, she must determine how it may be most effectively introduced to her class, just what the assignment should be, and on what study the emphasis should be placed. The wise teacher will not attempt to teach all the fine literary points illustrated in any one piece of literature.

Introduction to the Lesson. The purpose of the introduction is to create a strong interest in the selection to be studied, or to clear away difficulties which may be too discouraging. The introduction may consist of telling the story, of giving the historical setting, of reading it to the class, of showing some picture or object connected with the selection, or of any other legitimate means of arousing an enthusiasm sufficient to hold pupils to sustained effort.

The Assignment. The assignment must be quite within the student's ability, for there is pleasure in feeling that a task is well done and an unwholesome, discouraged attitude results from attempting excessive work. It must be definite in just what is required, and if references are to be consulted, must state just where the pupils will find the information desired that time may not be wasted, and effort may not be fruitless.

If the selection is long, the assignments must be not "forty lines" or "two pages," but by parts which are units in themselves, so that the construction is observed. Finally, the assignments must be varied, and definitely purposeful. If possible, a written assignment is better than an oral one.

THE RECITATION

In the recitation the teacher must not neglect seeing that the work assigned has been faithfully done, as few pupils are conscientious enough to prepare work which is not noted by their teacher. The children should learn that it is to their credit to ask for help in overcoming the difficulties which they have met and been unable to master.

Then there should be definite instruction. The teacher, out of her richer experience, wider outlook, and deeper insight, should lead the children to a more inspiring and comprehensive knowledge of the selection than they can attain to unaided.

Finally comes the oral interpretation. Each child in his turn steps to the front to give the class the benefit of his thought and feeling. He stands erect, holding his book in his left hand; and, when he has the place and is ready to read, he glances at the teacher, who by nod or smile indicates that all is satisfactory and he may proceed. All this takes but a few seconds, as, in a well disciplined school, the children in their eagerness to read waste no time. Then, however faulty the pupil's position may become under the excitement of reading, the wise teacher says nothing.

The teacher aids the child powerfully by listening sympathetically and training the class to do the same. All criticisms should be constructive and encouraging—never such as make a child either discouraged or self-conscious. The class should be trained to note:

1. Did the reader comprehend what he read?
2. Did he re-think it at the moment of reading?
3. How did he feel about it?
4. Did he read with directness—that is, to his audience?

Having definite points to listen for holds the attention of the class and gives interest while one after another reads.

After a number of selections have been studied, each pupil should be encouraged

to choose one selection and to work at it until he thinks he is ready to read it to the class.

Later, the children should select short readings which are not a part of the school work and endeavor to utilize what has been taught them of methods of studying literature in preparing such selection independently to present to the class.

One feature may profitably be added to the work of reading:

To facilitate interpretation.

To overcome self-consciousness.

To strengthen power of expression.

This is the formation of the habit on the part of the pupils of telling, without the book and in their own words, the story or the thought which is found in the selection. Some excellent suggestions in this connection are found elsewhere in an article on STORY TELLING.

THE UPPER GRADES

The reading work of the upper grades is largely a study of literature, and the work should enable the pupil not only to know some of the great writings but to know something of why they are good, so that, as he reads independently, he may have standards of judgment as to the value of what he reads.

In *The Last Leaf* and *The Boys* pupils have an illustration of humor that is kindly; in *Snowbound* and *The Huskers*, of descriptions which really make pictures; in *Evangeline*, of story telling in which every incident mentioned forwards the story; in *Snowbound*, delicate character sketching; in *Ichabod Crane*, fuller and more vivid portraiture; in *The Great Stone Face*, character development; in the *Christmas Carol*, character change and interplay of conversation. *Evangeline* is a fine illustration of knitting the whole together by the introduction, suggesting the atmosphere of the whole, and the conclusion pointing back to the introduction, as it ends the sad, sweet story. In *The Tales of the Wayside Inn* there are beautiful examples of varied metre which pupils should feel and respond to rather than name and classify. They have had from the first beautiful examples of metaphor, simile, personification, and alliteration. In *The Burial of Moses* they have the majesty of measure and sound to fit the great theme; in *The Song of the Chattahoochee* they have the construction clearly shown: I (v. 1), the life purpose of the river; II (vs. 1, 2, 3, 4), the hindrances to living up to its purpose; III, the accomplishment of its purpose. In this poem also the charm of well chosen words has been exquisitely shown. Heroism is brought out in *Horatius*, patience and loyalty and altruism in *Evangeline*, the value of high ideals in *The Great Stone Face*. Each great selection studied in some way enriches the pupil's life. Then, in addition to the regular lesson, the teacher should share with the children whatever she is reading for her own pleasure or profit, as well as have certain selections carefully chosen and well prepared to read to the school.

FAVORITE POEMS

THE SWING.

How do you like to go up in a swing,
Up in the air so blue?
Oh, I do think it the pleasantest thing
Ever a child can do!

Up in the air and over the wall,
Till I can see so wide,
Rivers and trees and cattle and all
Over the countryside—

Till I look down on the garden green,
Down on the roof so brown—
Up in the air I go flying again,
Up in the air and down!

—*Stevenson.*

FRECKLES AND TAN.

Say, what are these wee little freckles,
And what in the world is the tan,
That color and sprinkle all over
The face of our dear little man?

The tan is a heavenly mixture
Of happiness, sunshine and joy,
That darkens the shade of the roses,
That bloom in the cheek of our boy.

The freckles are scars from the kisses
That angels in loving embrace
Have pressed, in a careless confusion,
All over our little boy's face.

So here's to the boy with the freckles:
The boy with the freckles and tan;
These glorious imprints of heaven
Have labeled him, God's little man.

Copyright 1900—*Roland C. Bowman.*

FARMER JOHN.

Home from his journey Farmer John
Arrived this morning safe and sound.
His black coat off and his old clothes on,
"Now I'm myself," says Farmer John;
And he thinks, "I'll look around."

Up leaps the dog; "Get down, you pup;
Are you so glad you would eat me up?"
The old cow lows at the gate to greet him;
The horses prick up their ears to meet him;

"Well, well, old Bay!

Ha, ha, old Gray!

Do you get good feed when I am away?"

"You haven't a rib!" says Farmer John;
"The cattle are looking round and sleek;
The colt is going to be a roan,
And a beauty, too: how he has grown!
We'll wean the calf next week,"

Says Farmer John. "When I've been off,
To call you again about the trough,
And watch you, and pet you, while you
drink,

Is a greater comfort than you can think!"

And he pats old Bay,

And he slaps old Gray;

"Ah, this is the comfort of going away!"

"For after all," said Farmer John,
"The best of the journey is getting home!
I've seen great sights—but would I give
This spot, and the peaceful life I live,
For all their Paris and Rome?
These hills for the city's stifled air,
And big hotels, all bustle and glare;
Land all houses, and road all stones,
That deafen your ears and batter your
bones?"

Would you, old Bay?

Would you, old Gray?

That's what one gets by going away!"

"There money is king," says Farmer John;
 "And fashion is queen; and it's mighty
 queer

To see how, sometimes, while the man
 Is raking and scraping all he can,

The wife spends every year,
 Enough you would think for a score of
 wives,

To keep them in luxury all their lives.

The town is a perfect Babylon

To a quiet chap," says Farmer John.

"You see, old Bay,

You see, old Gray—

I'm wiser than when I went away."

"I've found out this," says Farmer John—

"That happiness is not bought and sold,
 And clutched in a life of waste and hurry,
 In nights of pleasure and days of worry;
 And wealth isn't all in gold,

Mortgage and stocks and ten per cent,—

But in simple ways and sweet content,

Few wants, pure hopes, and noble ends,

Some lands to till, and a few good friends,

Like you, old Bay,

And you, old Gray!

That's what I've learned by going away."

And a happy man is Farmer John—

Oh, a rich and happy man is he!

He sees the peas and pumpkins growing,

The corn in tassel, the buckwheat blowing,

And fruit on vine and tree;

The large, kind oxen look their thanks

As he rubs their foreheads and strokes their
 flanks;

The doves light round him, and strut and
 coo;

Says Farmer John, "I'll take you too,—

And you, old Bay,

And you, old Gray!

Next time I travel so far away!"

—*J. T. Trowbridge.*

THOSE EVENING BELLS.

Those evening bells! those evening bells!
 How many a tale their music tells,
 Of youth, and home, and that sweet time
 When last I heard their soothing chime.

Those joyous hours are passed away;
 And many a heart that then was gay
 Within the tomb now darkly dwells,
 And hears no more those evening bells.

And so 'twill be when I am gone;
 That tuneful peal will still ring on,
 While other bards shall walk these dells,
 And sing your praise, sweet evening bells!
 —*Thomas Moore.*

THE CHILDREN'S HOUR.

Between the dark and the daylight
 When the night is beginning to lower,
 Comes a pause in the day's occupations,
 That is known as the children's hour.

I hear in the chamber above me

The patter of little feet;

The sound of a door that is opened,
 And voices soft and sweet.

From my study I see in the lamplight,
 Descending the broad hall stair,
 Grave Alice, and laughing Allegra,
 And Edith with golden hair.

A whisper, and then a silence,

Yet I know by their merry eyes

They are plotting and planning together
 To take me by surprise.

A sudden rush from the stairway;

A sudden raid from the hall;

By three doors left unguarded

They enter my castle-wall.

They climb up into my turret,

O'er the arms and back of my chair;

If I try to escape, they surround me;

They seem to be everywhere.

They almost devour me with kisses,

Their arms about me entwine,

Till I think of the Bishop of Bingen,

In his Mouse-Tower on the Rhine.

Do you think, O blue-eyed banditti,

Because you have scaled the wall,

Such an old mustache as I am

Is not a match for you all?

I have you fast in my fortress,

And will not let you depart,

But put you into the dungeon,

In the round-tower of my heart.

And there will I keep you forever—

Yes, forever and a day;

Till the walls shall crumble to ruin,

And moulder in dust away.

—*H. W. Longfellow.*

OLD IRONSIDES.

[The following lines were called forth by a rumor that the frigate Constitution was about to be broken up as unfit for service.]

Ay, tear her tattered ensign down!
 Long has it waved on high,
 And many an eye has danced to see
 That banner in the sky:
 Beneath it rung the battle-shout,
 And burst the cannon's roar;
 The meteor of the ocean-air
 Shall sweep the clouds no more.

Her deck, once red with heroes' blood,
 Where knelt the vanquished foe,
 When winds were hurrying o'er the flood,
 And waves were white below,
 No more shall feel the victor's tread,
 Or know the conquered knee;
 The harpies of the shore shall pluck
 The eagle of the sea.

Oh, better that her shattered hulk
 Should sink beneath the wave;
 Her thunders shook the mighty deep,
 And there should be her grave.
 Nail to the mast her holy flag,
 Set every threadbare sail,
 And give her to the god of storms—
 The lightning and the gale.

—O. W. Holmes.

TO A MOUSE.

Wee, sleekit, cowerin, timorous beastie,
 O, what a panic's in thy breastie!
 Thou need na start awa sae hasty,
 Wi' bickerin brattle!
 I wad be laith to rin an' chase thee,
 Wi' murderin pattle!

I'm truly sorry man's dominion
 Has broken Nature's social union,
 An' justifies that ill opinion
 Which makes thee startle
 At me, thy poor earth-born companion,
 An' fellow-mortal!

I doubt na, whyles, but thou mayst thief;
 What then? poor beastie, thou maun live!
 A daimen-icker in a thrave
 'S a sma' request:

I'll get a blessing wi' the lave,
 And never miss't!

Thy wee bit housie, too, in ruin!
 Its silly wa's the win's are strewin!
 An' naething, now, to big a new one,
 O' foggage green!
 An' bleak December's winds ensuin,
 Baith snell an' keen!

Thou saw the fields laid bare an' waste,
 An' weary winter comin fast,
 An' cozie here, beneath the blast,
 Thou thought to dwell,
 Till, crash! the cruel coulter past
 Out through thy cell.

That wee bit heap o' leaves and stibble
 Has cost thee mony a weary nibble;
 Now thou's turned out, for a' thy trouble,
 But house nor hald,
 To thole the winter's sleety dribble,
 An' cranreuch cauld!

But, Mousie, thou art no thy lane,
 In proving foresight may be vain:
 The best-laid schemes o' mice an' men
 Gang aft a-gley,
 An' lea'e us nought but grief and pain,
 For promised joy.

Still thou art blest, compared wi' me!
 The present only toucheth thee:
 But, och! I backward cast my e'e
 On prospects drear!
 An' forward, though I canna see,
 I guess an' fear!

—Burns.

TO A MOUNTAIN DAISY.

Wee, modest, crimson-tipped flower,
 Thou'st met me in an evil hour;
 For I maun crush amang the stoure
 Thy slender stem:
 To spare thee now is past my power,
 Thou bonnie gem.

Alas! it's no thy neibor sweet,
 The bonnie lark, companion meet,
 Bending thee 'mang the dewy weet,
 Wi' speckled breast,
 When upward-springing, blithe, to greet
 The purpling east!

Cauld blew the bitter-biting north
 Upon thy early, humble birth;
 Yet cheerfully thou glinted forth
 Amid the storm,
 Scarce reared above the parent earth
 Thy tender form.

The flaunting flowers our gardens yield,
 High sheltering woods and wa's maun
 shield,
 But thou beneath the random bield
 O' clod, or stane.
 Adorns the histie stibble field.
 Unseen, alane.

There in thy scanty mantle clad,
 Thy snawie bosom sunward spread,
 Thou lifts thy unassuming head
 In humble guise;
 But now the share up-tears they bed,
 And low thou lies.

Such is the fate of artless maid,
 Sweet floweret of the rural shade!
 By love's simplicity betrayed,
 And guileless trust,
 Till she, like thee, all soiled, is laid
 Low i' the dust.

Such is the fate of simple bard,
 On life's rough ocean luckless starred!
 Unskillful he to note the card
 Of prudent lore,
 Till billows rage, and gales blow hard,
 And overwhelm him o'er!

Such fate to suffering worth is given,
 Who long with wants and woes has striven.
 To misery's brink,
 By human pride or cunning driven
 Till, wrenched of every stay but Heaven,
 He, ruined, sink!

Even thou who mourn'st the daisy's fate,
 That fate is thine—no distant date;
 Stern Ruin's ploughshare drives, elate,
 Full on thy bloom,
 Till crushed beneath the furrow's weight
 Shall be thy doom!

—Burns.

FOR A' THAT AND A' THAT.

Is there, for honest poverty
 That hangs his head and a' that?
 The coward-slave, we pass him by,
 We dare be poor for a' that;
 For a' that, and a' that,
 Our toils obscure, and a' that,
 The rank is but the guinea's stamp,
 The man's the gowd for a' that.

What tho' on hamely fare we dine,
 Wear hoddin gray, and a' that;
 Gie fools their sticks, and knaves their
 wine;
 A man's a man for a' that;
 For a' that, and a' that,
 Their tinsel show, and a' that;
 The honest man, though e'er sae poor,
 Is king o' men for a' that.

Ye see yon birkie ca'd a lord,
 Wha struts and stares and a' that;
 Tho' hundreds worship at his word,
 He's but a coof for a' that;
 For a' that, and a' that,
 His riband, star, and a' that;
 The man of independent mind,
 He looks and laughs at a' that.

A prince can mak a belted knight,
 A marquis, duke, and a' that:
 But an honest man's aboon his might,
 Guid faith he mauna fa' that.
 For a' that, and a' that,
 Their dignities, and a' that,
 The pith o' sense, and pride o' worth,
 Are higher ranks than a' that.

Then let us pray that come it may,
 As come it will for a' that,
 That sense and worth o'er a' the earth,
 May bear the gree, and a' that.
 For a' that, and a' that,
 It's coming yet, for a' that,
 That man to man, the warld o'er,
 Shall brothers be for a' that.

—Burns.

FOREST HYMN.

The groves were God's first temples. Ere
 man learned
 To hew the shaft, and lay the architrave,
 And spread the roof above them,—ere he
 framed
 The lofty vault, to gather and roll back
 The sound of anthems,—in the darkling
 wood,
 Amid the cool and silence, he knelt down
 And offered to the Mightiest solemn thanks
 And supplication. Let me, then, at least,
 Here, in the shadow of this aged wood,
 Offer one hymn—thrice happy, if it find
 Acceptance in His ear.

Father, Thy hand
 Hath reared these venerable columns; Thou
 Didst weave this verdant roof. Thou didst
 look down
 Upon the naked earth, and, forthwith, rose
 All these fair ranks of trees. They in Thy
 sun
 Budded, and shook their green leaves in
 Thy breeze,
 And shot toward heaven. The century-
 living crow
 Whose birth was in the tops, grew old and
 died
 Among their branches,—till, at last, they
 stood,
 As now they stand, massy, and tall, and
 dark,
 Fit shrine for humble worshiper to hold
 Communion with his Maker. These dim
 vaults,
 These winding aisles, of human pomp or
 pride
 Report not. No fantastic carvings show
 The boast of our vain race to change the
 form
 Of Thy fair works. But Thou art there;
 Thou fill'st
 The solitude; Thou art in the soft winds
 That run along the summit of these trees
 In music; Thou art in the cooler breath,
 That, from the inmost darkness of the
 place,
 Comes, scarcely felt; the barky trunks, the
 ground,
 The fresh, moist ground, are all instinct
 with Thee.

—W. C. Bryant.

"ABIDE WITH ME."

Abide with me! Fast falls the eventide;
 The darkness deepens: Lord, with me
 abide!
 When other helpers fail, and comforts flee,
 Help of the helpless, O, abide with me!

Swift to its close ebbs out life's little day,
 Earth's joys grow dim, its glories pass
 away;
 Change and decay in all around I see;
 Oh, Thou who changest not, abide with me!

Not a brief glance, I beg, a passing word,
 But as Thou dwelt with Thy disciples,
 Lord,
 Familiar, condescending, patient, free,
 Come, not to sojourn, but abide with me!

Come not in terrors, as the King of Kings;
 But kind and good, with healing in Thy
 wings;
 Tears for all woes, a heart for every plea:
 Come, Friend of sinners, and abide with
 me!

Thou on my head in early youth didst smile,
 And though rebellious and perverse, mean-
 while,
 Thou hast not left me, oft as I left Thee.
 On to the close, O Lord, abide with me!

I need Thy presence every passing hour:
 What but Thy grace can foil the tempter's
 power?
 Who like Thyself my Guide and Stay can
 be?
 Through cloud and sunshine, O, abide with
 me!

I fear no foe with Thee at hand to bless,
 Ills have no weight, and tears no bitterness;
 Where is death's sting? where, grave, thy
 victory?

I triumph still, if Thou abide with me!

Hold Thou Thy cross before my closing
 eyes,
 Shine through the gloom, and point me to
 the skies:
 Heaven's morning breaks, and earth's vain
 shadows flee;
 In life and death, O Lord, abide with me!

—W. H. Lyte.

CREEDS OF THE BELLS.

How sweet the chime of the Sabbath bells!
 Each one its creed in music tells,
 In tones that float upon the air,
 As soft as song, as pure as prayer;
 And I will put in simple rhyme
 The language of the golden chime.
 My happy heart with rapture swells
 Responsive to the bells, sweet bells.

"In deeds of love excel, excel!"
 Chimed out from ivied towers a bell,
 "This is the church not built on sands,
 Emblem of one not built with hands;
 Its forms and sacred rites revere;
 Come, worship here, come, worship here;
 In ritual and faith excel,"
 Chimed out the Episcopalian bell.

"Oh, heed ye ancient landmarks well,"
 In solemn tones exclaimed a bell;
 "No progress made by mortal man
 Can change the just, eternal plan:
 With God there can be nothing new;
 Ignore the false, embrace the true,
 While all is well, is well, is well,"
 Pealed out the good old Dutch church bell.

"Ye purifying waters swell,"
 In mellow tones rang out a bell:
 "Though faith alone in Christ can save,
 Man must be plunged beneath the wave,
 To show the world unfaltering faith
 In what the sacred Scripture saith:
 O, swell, ye rising waters, swell,"
 Pealed out the clear-toned Baptist bell.

"Not faith alone, but works, as well,
 Must test the soul," said a soft bell:
 "Come here and cast aside your load.
 And work your way along the road,
 With faith in God, and faith in man,
 And hope in Christ, where hope began:
 Do well, do well, do well, do well!"
 Rang out the Unitarian bell.

"Farewell, farewell, base world, farewell,"
 In touching tones exclaimed a bell;
 "Life is a boon to mortals given,
 To fit the soul for bliss in heaven:
 Do not invoke the avenging rod,
 Come here and learn the way to God;
 Say to the world farewell, farewell!"
 Pealed forth the Presbyterian bell.

"In after life there is no hell"
 In raptures rang a cheerful bell:
 "Look up to heaven this holy day,
 Where angels wait to lead the way;
 There are no fires, no fiends to blight
 The future life: be just and right.
 No hell, no hell, no hell, no hell!"
 Rang out the Universalist bell.

"To all the truth we tell, we tell!"
 Shouted in ecstasies a bell:
 "Come, all ye weary wanderers, see,
 Our Lord has made salvation free!
 Repent, believe, have faith, and then
 Be saved and praise the Lord. Amen.
 Salvation's free, we tell, we tell!"
 Shouted the Methodist bell.

—George W. Bungay.

BEAUTIFUL HANDS.

Such beautiful, beautiful hands!
 They are neither white nor small,
 And you, I know, would scarcely think
 That they were fair at all.
 I've looked on hands whose form and hue
 A sculptor's dream might be;
 Yet are these aged, wrinkled hands
 More beautiful to me.

Such beautiful, beautiful hands.
 Though heart were weary and sad,
 Those patient hands kept toiling on,
 That children might be glad.
 I almost weep, as looking back
 To childhood's distant day,
 I think how those hands rested not
 While mine were at their play.

Such beautiful, beautiful hands!
 They're growing feeble now,
 For time and pain have left their work
 On hand, and heart, and brow,
 Alas! alas! the wearing time,
 And the sad, sad day to me,
 When 'neath the daisies, out of sight,
 Those hands will folded be.

But oh, beyond this shadowy damp,
 Where all is bright and fair,
 I know full well these dear old hands
 Will palms of victory bear;
 Where crystal streams thro' endless years
 Flow over golden sands,
 And when the old grow young again
 I'll clasp my mother's hands.

—Anonymous.

HIAWATHA'S WOOING.

"As unto the bow the cord is,
So unto the man is woman;
Though she bends him, she obeys him,
Though she draws him, yet she follows,
Useless each without the other!"

Thus the youthful Hiawatha
Said within himself and pondered,
Much perplexed by various feelings,
Listless, longing, hoping, fearing,
Dreaming still of Minnehaha,
Of the lovely Laughing Water,
In the land of the Dacotahs.

"Wed a maiden of your people,"
Warning said the old Nokomis;
"Go not eastward, go not westward,
For a stranger, whom we know not!
Like a fire upon the hearthstone
Is a neighbor's homely daughter,
Like the starlight or the moonlight
Is the handsomest of strangers!"

Thus dissuading spake Nokomis,
And my Hiawatha answered
Only this: "Dear old Nokomis,
Very pleasant is the firelight,
But I like the starlight better,
Better do I like the moonlight!"

Gravely then said old Nokomis:
"Bring not here an idle maiden,
Bring not here a useless woman,
Hands unskillful, feet unwilling,
Bring a wife with nimble fingers,
Heart and hand that move together,
Feet that run on willing errands!"

Smiling answered Hiawatha:
"In the land of the Dacotahs
Lives the Arrow-maker's daughter,
Minnehaha, Laughing Water,
Handsomest of all the women.
I will bring her to your wigwam,
She shall run upon your errands,
Be your starlight, moonlight, firelight,
Be the sunlight of my people!"
Still dissuading said Nokomis:
"Bring not to my lodge a stranger
From the land of the Dacotahs!
Very fierce are the Dacotahs;
Often is there war between us;
There are feuds yet unforgotten,
Wounds that ache and still may open!"

Laughing, answered Hiawatha:
"For that reason, if no other,
Would I wed the fair Dacotah,
That our tribes might be united,
That old feuds might be forgotten,
And old wounds be healed forever!"

Thus departed Hiawatha
To the land of the Dacotahs,
To the land of handsome women;
Striding over moor and meadow,
Through interminable forests,
Through uninterrupted silence.

With his moccasins of magic,
At each stride a mile he measured;
Yet the way seemed long before him,
And his heart outrun his footsteps,
And he journeyed without resting,
Till he heard the cataract's laughter,
Heard the Falls of Minnehaha
Calling to him through the silence.
"Pleasant is the sound!" he murmured
"Pleasant is the voice that calls me!"

On the outskirts of the forest,
'Twixt the shadow and the sunshine,
Herds of fallow deer were feeding,
But they saw not Hiawatha;
To his bow he whispered, "Fail not."
To his arrow whispered, "Swerve not."
Sent it singing on its errand,
To the red heart of the roebuck;
Threw the deer across his shoulder,
And sped forward without pausing.

At the doorway of his wigwam
Sat the ancient Arrow-maker,
In the land of the Dacotahs,
Making arrow-heads of jasper,—
Arrow-heads of chalcedony.
At his side, in all her beauty,
Sat the lovely Minnehaha,
Sat his daughter, Laughing Water,
Plaiting mats of flags and rushes;
Of the past the old man's thoughts were
And the maiden's of the future.

He was thinking, as he sat there,
Of the days when with such arrows
He had struck the deer and bison,
On the Muskoday, the meadow;
Shot the wild goose, flying southward,
On the wing, the clamorous Wawa;
Thinking of the great war-parties,
How they came to buy his arrows,
Could not fight without his arrows.

Ah, no more such noble warriors
 Could be found on earth as they were:
 Now the men were like the women,
 Only used their tongues for weapons!

She was thinking of a hunter,
 From another tribe and country,
 Young and tall and very handsome,
 Who one morning, in the Spring-time,
 Came to buy her father's arrows,
 Sat and rested in the wigwam,
 Lingered long about the doorway,
 Looking back as he departed.
 She had heard her father praise him,
 Praise his courage and his wisdom;
 Would he come again for arrows,
 To the Falls of Minnehaha?
 On the mat her hands lay idle,
 And her eyes were very dreamy.

Through their thoughts they heard a
 footstep,
 Heard a rustling in the branches,
 And with glowing cheek and forehead,
 With the deer upon his shoulders,
 Suddenly from out the woodlands
 Hiawatha stood before them.

Straight the ancient Arrow-maker
 Looked up gravely from his labor,
 Laid aside the unfinished arrow,
 Bade him enter at the doorway,
 Saying, as he rose to meet him,
 "Hiawatha, you are welcome!"

At the feet of Laughing Water
 Hiawatha laid his burden,
 Threw the red deer from his shoulders;
 And the maiden looked up at him,
 Looked up from her mat of rushes,
 Said with gentle look and accent,
 "You are welcome, Hiawatha!"

Very spacious was the wigwam,
 Made of deer-skin dressed and whitened,
 With the Gods of the Dacotahs
 Drawn and painted on its curtains,
 And so tall the doorway, hardly
 Hiawatha stooped to enter,
 Hardly touched his eagle-feathers
 As he entered at the doorway.

Then uprose the Laughing Water,
 From the ground fair Minnehaha
 Laid aside her mat unfinished,
 Brought forth food and set before them,

Water brought them from the brooklet,
 Gave them food in earthen vessels,
 Gave them drink in bowls of bass-wood,
 Listened while the guest was speaking,
 Listened while her father answered,
 But not once her lips she opened,
 Not a single word she uttered.

Yes, as in a dream she listened
 To the words of Hiawatha,
 As he talked of old Nokomis,
 Who had nursed him in his childhood,
 As he told of his companions,
 Chibiabas, the musician,
 And the very strong man, Kwasind,
 And of happiness and plenty
 In the land of the Ojibways,
 In the pleasant land and peaceful.

"After many years of warfare,
 Many years of strife and bloodshed,
 There is peace between the Ojibways
 And the tribe of the Dacotahs."
 Thus continued Hiawatha,
 And then added, speaking slowly,

"That this peace may last forever,
 And our hands be clasped more closely,
 And our hearts be more united,
 Give me as my wife this maiden,
 Minnehaha, Laughing Water,
 Loveliest of Dacotah women!"

And the ancient Arrow-maker
 Paused a moment ere he answered.
 Smoked a little while in silence,
 Looked at Hiawatha proudly,
 Fondly looked at Laughing Water,
 And made answer very gravely.

"Yes, if Minnehaha wishes;
 Let your heart speak, Minnehaha!"

And the lovely Laughing Water,
 Seemed more lovely, as she stood there,
 Neither willing nor reluctant,
 As she went to Hiawatha,
 Softly took the seat beside him,
 While she said, and blushed to say it,
 "I will follow you, my husband!"

This was Hiawatha's wooing!
 Thus it was he won the daughter
 Of the ancient Arrow-maker,
 In the land of the Dacotahs.

From the wigwam he departed,
 Leading with him Laughing Water;
 Hand in hand they went together,
 Through the woodland and the meadow,
 Left the old man standing lonely
 At the doorway of his wigwam,
 Heard the Falls of Minnehaha
 Calling to them from afar off,
 "Fare thee well, O Minnehaha!"

And the ancient Arrow-maker
 Turned again unto his labor,
 Sat down by his sunny doorway,
 Murmuring to himself, and saying:
 "Thus it is our daughters leave us,
 Those we love, and those who love us!
 Just when they have learned to help us,
 When we are old and lean upon them,
 Comes a youth with flaunting feathers,
 With his flute of reeds, a stranger
 Wanders piping through the village,
 Beckons to the fairest maiden,
 And she follows where he leads her,
 Leaving all things for the stranger!"

Pleasant was the journey homeward,
 Through interminable forests,
 Over meadow, over mountain,
 Over river, hill, and hollow.
 Short it seemed to Hiawatha,
 Though they journeyed very slowly,
 Though his pace he checked and slackened
 To the steps of Laughing Water.

Over wide and rushing rivers
 In his arms he bore the maiden;
 Light he thought her as a feather,
 As the plume upon his head-gear;
 Cleared the tangled pathway for her,
 Bent aside the swaying branches,
 Made at night a lodge of branches,
 And a bed with boughs of hemlock,
 And a fire before the doorway
 With the dry cones of the pine-tree.

All the traveling winds went with them.
 O'er the meadow, through the forest;
 All the stars of night looked at them,
 Watched with sleepless eyes their slumber;
 From his ambush in the oak-tree
 Peeped the squirrel, Adjidaumo,
 Watched with eager eyes the lover;
 And the rabbit, the Wabasso,
 Scampered from the path before them,
 Peering, peeping from his burrow,
 Sat erect upon his haunches,
 Watched with curious eyes the lovers.

Pleasant was the journey homeward!
 All the birds sang loud and sweetly
 Songs of happiness and heart's-ease.
 Sang the blue-bird, the Owaissa,
 "Happy are you, Hiawatha,
 Having such a wife to love you!"
 Sang the robin, the Opechee,
 "Happy are you, Laughing Water,
 Having such a noble husband!"

From the sky the sun benignant
 Looked upon them through the branches,
 Saying to them, "O my children,
 Love is sunshine, hate is shadow;
 Life is checkered shade and sunshine;
 Rule by love, O Hiawatha!"

From the sky the moon looked at them,
 Filled the lodge with mystic splendors,
 Whispered to them, "O my children,
 Day is restless, night is quiet,
 Man imperious, woman feeble;
 Half is mine, although I follow;
 Rule by patience, Laughing Water!"

Thus it was they journeyed homeward;
 Thus it was that Hiawatha
 To the lodge of old Nokomis
 Brought the moonlight, starlight, firelight,
 Brought the sunshine of his people,
 Minnehaha, Laughing Water,
 Handsomest of all the women
 In the land of the Dacotahs,
 In the land of handsome women.

—*Henry W. Longfellow.*

A SERMON FOR THE SISTERS.

I nebber breaks a colt afore hes' old enough
 to trabbel;
 I nebber digs my taters till dey plenty big
 to grabble;
 An' when you sees me risin' up to structify
 in meetin',
 I's fust clumb up de knowledge-tree and
 done some apple-eatin'.
 I sees some sistahs pruzint, mighty proud o'
 what dey wearin',
 It's well you isn't apples, now, you better
 be declarin'!
 For when you heerd yo' market price, 't 'd
 hurt yo' little feelin's:
 You wouldn't fotch a dime a peck, fo' all
 yo' fancy peelin's.

O sistahs—leetle apples (for you're r'ally
mighty like 'em)—
I lubs de ol'-time russets, dough its suldom
I kin strike 'em;
An' so I lubs you, sistahs, for yo' grace, an'
not yo' graces—
I don't keer how my apple looks, but on'y
how it tas'es.

Is dey a Sabbaf-scholah heah? Den let him
'form his mudder
How Jacob-in-the-Bible's boys played off
upon dey brudder!
Dey sol' him to a trader—an' at las' he
struck de prison:
Dat comed ob Joseph's struttin' in dat
streaked coat ob his'n.

My Christian frien's dis story proobes dat
eben men is human—
He'd had a dozen fancy coats, ef he'd 'a'
been a 'ooman!
De cussidness ob showin' off, he foun' out
all about it:
An' yit he wuz a Christian man, as good
as ever shouted.

It larned him! An' I bet you when he come
to git his riches
Dey didn't go for stylish coats or Phila-
delphy breeches;
He didn't was'e his money when experunce
taught him better,
But went aroun' a-lookin' like he's waitin'
for a letter!

Now, sistahs, won't you copy him? Say,
won't you take a lesson,
An' min' dis sollum wahnin' 'bout de sin
ob fancy dressin'?
How much yo' spen' upon yo'se'f! I wish
you might remember
Yo' preacher ain't been paid a cent sence
somewhar in November.

I better close. I sees some gals dis sahmon's
kinder hittin'
A-whisperin', an' 'sturbin' all dat's near
whar dey's a-sittin';
To look at dem, an' listen at day onrespec'-
ful jabber,
It turns de milk ob human kineness mighty
nigh to clabber!

A-A-A-MEN!

—Irwin Russell.

TO A WATERFOWL.

Whither, midst falling dew,
While glow the heavens with the last steps
of day,
Far, through their rosy depths, dost thou
pursue
Thy solitary way?

Vainly the fowler's eye
Might mark thy distant flight to do thee
wrong,
As, darkly seen against the crimson sky,
Thy figure floats along.

Seekst thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean-side?

There is a Power whose care
Teaches thy way along that pathless coast—
The desert and illimitable air—
Lone wandering, but not lost.

All day thy wings have fanned,
At that far height, the cold, thin atmos-
phere,
Yet stoop not, weary, to the welcome land,
Though the dark night is near.

And soon that toil shall end;
Soon shalt thou find a summer home, and
rest,
And scream among thy fellows; reeds shall
bend,
Soon, o'er thy sheltered nest.

Thou 'rt gone, the abyss of heaven
Hath swallowed up thy form; yet, on my
heart
Deeply has sunk the lesson thou hast given,
And shall not soon depart.

He who, from zone to zone,
Guides through the boundless sky they cer-
tain flight,
In the long way that I must tread alone,
Will lead my steps aright.

—William Cullen Bryant.

THE PLAIDIE.

Upon ane stormy Sunday,
 Coming adoon the lane,
 Were a score of bonnie lasses—
 And the sweetest I maintain
 Was Caddie,
 That I took unneath my plaidie,
 To shield her from the rain.

She said that the daisies blushed
 For the kiss that I had ta'en;
 I wad na hae thought the lassie
 Wad sae of a kiss complain:
 "Now, laddie!
 I winna stay under your plaidie,
 I'll gaing awa hame in the rain!"

But, on an after Sunday,
 When cloud there was not ane,
 This selfsame winsome lassie
 (We chanced to meet in the lane)
 Said, "Laddie,
 Why dinna ye wear your plaidie?
 Wha kens but it may rain?"
 —*Charles Sibley.*

THE DESERTED VILLAGE.

Sweet Auburn! loveliest village of the plain,
 Where health and plenty cheered the labor-
 ing swain;
 Where smiling spring its earliest visit paid,
 And parting summer's lingering blooms de-
 layed!
 Dear lovely bowers of innocence and ease,
 Seats of my youth where every sport could
 please,

How often have I loitered o'er thy green,
 Where humble happiness endeared each
 scene!

How often have I paused on every charm,
 The sheltered cot, the cultivated farm,
 The never failing brook, the busy mill,
 The decent church that topped the neigh-
 boring hill,

The hawthorn bush, with seats beneath the
 shade,
 For talking age and whispering lovers
 made!

How often have I blest the coming day,
 When toil remitting lent its turn to play;
 And all the village train, from labor free,
 Led up their sports beneath the spreading
 tree;

While many a pastime circled in the shade,
 The young contending as the old surveyed:
 And many a gambol frolicked o'er the
 ground,

And sleights of art and feats of strength
 went round.

And still, as each repeated pleasure tired,
 Succeeding sports the mirthful band in-
 spired;

The dancing pair that simply sought re-
 nown

By holding out to tire each other down;
 The swain mistrustless of his smutted face,
 While secret laughter tittered round the
 place;

The bashful virgin's sidelong looks of love,
 The matron's glance that would those looks
 reprove—

These were thy charms, sweet village!
 sports like these

With sweet succession taught e'en toil to
 please;

These round thy bowers their cheerful in-
 fluence shed,

These were thy charms—but all these
 charms are fled.

Sweet smiling village, loveliest of the lawn,
 Thy sports are fled, and all thy charms with-
 drawn.

Amidst thy bowers the tyrant's hand is seen,
 And desolation saddens all thy green:

One only master grasps the whole domain,
 And half a tillage tints thy smiling plain;
 No more thy glassy brook reflects the day,
 But, choked with sedges, works its weedy
 way;

Along thy glades, a solitary guest,
 The hollow-sounding bittern guards its
 nest;

Amidst thy desert walks the lapwing flies,
 And tires the echoes with unvaried cries.

—*Oliver Goldsmith.*

MAKIN' AN EDITOR OUTEN O' HIM.

"Good mornin,' sir, Mr. Printer; how is your body to-day?

I'm glad you're to home, for you fellers is al'ays a runnin' away.

Your paper last week wa'n't so spicy nor sharp as the one week before;

But I s'pose when the campaign is opened, you'll be whoopin' it up to 'em more.

That feller that's printin' *The Smasher* is goin' for you perty smart;

And our folks said this mornin' at breakfast, they thought he was gettin' the start.

But I hushed 'em right up in a minute, and said a good word for you;

I told 'em I b'lieved you was tryin' to do just as well as you knew;

And I told 'em that some one was sayin', and whoever 'twas it is so,

That you can't expect much of no one man, nor blame him for what he don't know.

But, layin' aside *pleasure* for business, I've brought you my little boy Jim;

And I thought I would see if you couldn't make an editor outen o' him.

"My family stock is increasin', while other folks seem to run short.

I've got a right smart of a family—it's one of the old-fashioned sort:

There's Ichabod, Isaac and Israel, a workin' away on the farm,

They do 'bout as much as one good boy, and make things go off like a charm.

There's Moses and Aaron are sly ones, and slip like a couple of eels;

But they're tol'able steady in one thing—they al'ays git round to their meals.

There's Peter, is busy inventin' (though *what* he invents I can't see),

And Joseph is studyin' medicine—and both of 'em boardin' with me.

There's Abram and Albert is married, each workin' my farm for himself,

And Sam smashed his nose at a shootin', and so he is laid on the shelf.

The rest of the boys are all growin', 'cept this little runt, which is Jim,

And I thought that perhaps I'd be makin' an editor outen o' him.

"He ain't no great shakes for to labor, though I've labored with him a good deal,

And give him some strappin' good arguments I know he couldn't help but to feel;

But he's built out of second-growth timber, and nothin' about him is big,

Exceptin' his appetite only, and there he's as good as a pig.

I keep him carryin' luncheons, and fillin' and bringin' the jugs,

And take him among the pertatoes, and set him to pickin' the bugs;

And then there's things to be doin' a helpin' the women in-doors;

There's churnin' and washin' of dishes, and other descriptions of chores;

But he don't take to nothin' but victuals, and he'll never be much, I'm afraid,

So I thought it would be a good notion to larn him the editor's trade.

His body's too small for a farmer, his judgment is rather too slim,

But I thought we perhaps could be makin' an editor outen o' him.

"It ain't much to get up a paper, it wouldn't take him long for to learn;

He could feed the machine, I'm thinkin', with a good strappin' fellow to turn,

And things that was once hard in doin' is easy enough now to do;

Just keep your eye on your machinery, and crack your arrangements right through.

I used for to wonder at readin', and where it was got up, and how;

But 'tis most of it made by machinery—I can see it all plain enough now.

And poetry, too, is constructed by machines of different designs,

Each one with a gauge and a chopper, to see to the length of the lines;

And I hear a New York clairvoyant is runnin' one sleeker than grease,

And a-*rentin'* her heaven-born productions at a couple of dollars apiece;

An' since the whole trade has growed easy, 'twould be easy enough, I've a whim,

If you was agreed, to be makin' an editor outen o' Jim."

The editor sat in his sanctum and looked the
old man in the eye,
Then glanced at the grinning young hopeful, and mournfully made his reply:
"Is your son a small unbound edition of
Moses and Solomon both?
Can he compass his spirit with meekness,
and strangle a natural oath?
Can he leave all his wrongs to the future,
and carry his heart in his cheek?
Can he do an hour's work in a minute, and
live on a sixpence a week?
Can he courteously talk to an equal, and
browbeat an impudent dunce?
Can he keep things in apple-pie order, and
do half-a-dozen at once?
Can he press all the springs of knowledge
with quick and reliable touch,
And be sure that he knows how much *to*
know, and knows how to not know too
much?
Does he know how to spur up his virtue,
and put a checkrein on his pride?
Can he carry a gentleman's manners within
a rhinoceros' hide?
Can he know all, and do all, and be all,
with cheerfulness, courage, and vim?
If so, we perhaps can be 'makin' an editor
outen o' him.' "

The farmer stood curiously listening, while
wonder his visage o'erspread,
And he said: "Jim, I guess we'll be goin';
he's probably out of his head."
—*Will M. Carleton.*

ADDRESS OF MARK ANTONY.

Friends, Romans, countrymen, lend me your
ears;
I come to bury Cæsar, not to praise him.
The evil that men do lives after them;
The good is oft interred with their bones;
So let it be with Cæsar. The noble Brutus
Hath told you Cæsar was ambitious:
If it were so, it was a grievous fault,
And grievously hath Cæsar answer'd it.
Here, under leave of Brutus and the rest—
For Brutus is an honourable man;
So are they all, all honourable men—
Come I to speak in Cæsar's funeral.
He was my friend, faithful and just to me:
But Brutus says he was ambitious;
And Brutus is an honourable man.

He hath brought many captives home to
Rome,
Whose ransoms did the general coffers fill:
Did this in Cæsar seem ambitious?
When that the poor have cried, Cæsar hath
wept:
Ambition should be made of sterner stuff:
Yet Brutus says he was ambitious;
And Brutus is an honourable man.
You all did see that on the Lupercal
I thrice presented him a kingly crown,
Which he did thrice refuse: was this am-
bition?
Yet Brutus says he was ambitious;
And, sure, he is an honourable man.
I speak not to disprove what Brutus spoke,
But here I am to speak what I do know.
You all did love him once, not without
cause:
What cause withholds you then, to mourn
for him?
O judgment! thou art fled to brutish beasts,
And men have lost their reason. Bear with
me;
My heart is in the coffin there with Cæsar,
And I must pause till it come back to me.
—*Shakespeare.*

THE BOYS.

Has there any old fellow got mixed with
the boys?
If there has, take him out, without making
a noise.
Hang the Almanac's cheat and the Cata-
logue's spite!
Old Time is a liar! We're twenty to-night!
We're twenty! We're twenty! Who says
we are more?
He's tipsy,—young jackanapes! show him
the door!
"Gray temples at twenty?"—Yes! *white* if
we please;
Where the snowflakes fall thickest there's
nothing can freeze!
Was it snowing I spoke of? Excuse the
mistake!
Look close,—you will see not a sign of a
flake!
We want some new garlands for those we
have shed,—
And these are white roses in place of the
red.

We've a trick, we young fellows, you may
have been told,
Of talking (in public) as if we were old:—
That boy we call "Doctor," and this we
call "Judge;"
It's a neat little fiction,—of course it's all
fudge.

That fellow's the "Speaker"—the one on
the right;
"Mr. Mayor," my young one, how are you
to-night?
That's our "Member of Congress," we say
when we chaff;
There's the "Reverend"—What's his name?
—don't make me laugh.

That boy with the grave mathematical look
Made believe he had written a wonderful
book,
And the ROYAL SOCIETY thought it was
true!
So they chose him right in; a good joke
it was, too!

There's a boy, we pretend, with a three-
decker brain,
That could harness a team with a logical
chain;
When he spoke for our manhood in syl-
labled fire,
We called him "The Justice," but now he's
"The Squire."

And there's a nice youngster of excellent
pith,—
Fate tried to conceal him by naming him
Smith;
But he shouted a song for the brave and the
free,—
Just read on his medal, "My country," "of
thee!"

You hear that boy laughing?—You think
he's all fun;
But the angels laugh, too, at the good he
has done;
The children laugh loud as they troop to
his call,
And the poor man that knows him laughs
loudest of all!

Yes, we're boys, — always playing with
tongue or with pen,—
And I sometimes have asked,—Shall we
ever be men?

Shall we always be youthful, and laughing
and gay,
Till the last dear companion drops smiling
away?

Then here's to our boyhood, its gold and
its gray!
The stars of its winter, the dews of its May!
And when we have done with our life-
lasting toys,
Dear Father, take care of thy children, THE
Boys!

—*Oliver Wendell Holmes.*

RECESSIONAL.

God of our fathers, known of old—
Lord of our far-flung battle line—
Beneath Whose awful Hand we hold
Dominion over palm and pine—
Lord God of Hosts, be with us yet,
Lest we forget—lest we forget!

The tumult and the shouting dies—
The captains and the kings depart;
Still stands Thine ancient sacrifice,
An humble and a contrite heart.
Lord God of Hosts, be with us yet,
Lest we forget—lest we forget!

Far called our navies melt away—
On dune and headland sinks the fire—
Lo, all our pomp of yesterday
Is one with Nineveh and Tyre!
Judge of the Nations, spare us yet!
Lest we forget—lest we forget!

If, drunk with sight of power, we loose
Wild tongues that have not thee in awe—
Such boasting as the Gentiles use,
Or lesser breeds without the law—
Lord God of Hosts, be with us yet,
Lest we forget—lest we forget!

For heathen heart that puts its trust
In reeking tube and iron shard—
All valiant dust that builds on dust,
And guarding calls not Thee to guard—
For frantic boast and foolish word,
Thy mercy on Thy people, Lord!
Amen.

—*Rudyard Kipling.*

EARLY RISING.

"God bless the man who first invented sleep!"

So Sancho Panza said, and so say I;
And bless him also that he didn't keep

His great discovery to himself, nor try
To make it—as the lucky fellow might—
A close monopoly by patent right.

"Rise with the lark, and with the lark to bed,"

Observes some solemn, sentimental owl.
Maxims like these are very cheaply said;

But, ere you make yourself a fool or fowl,
Pray just inquire about his rise and fall,
And whether larks have any beds at all.

The time for honest folks to be abed
Is in the morning, if I reason right;
And he who can not keep his precious head
Upon his pillow till it's fairly light,
And so enjoy his forty morning winks,
Is up to knavery, or else—he drinks.

Thomson, who sung about the "Seasons,"
said

It was a glorious thing to rise in season;
But then, he said—lying—in his bed

At ten o'clock A. M.—the very reason
He wrote so charmingly. The simple fact
is,

His preaching wasn't sanctioned by his
practice.

'Tis, doubtless, well to be sometimes
awake,—

Awake to duty and awake to truth;
But when, alas! a nice review we take

Of our best deeds and days, we find, in
sooth,

The hours that leave the slightest cause to
weep

Are those we passed in childhood—or
asleep.

So, let us sleep, and give the Maker praise.

I like the lad who, when his father
thought

To clip his morning nap by hackneyed
phrase

Of vagrant worm by early songster
caught,

Cried, "Served him right! it's not at all
surprising!—

The worm was punished, sir, for early ris-
ing."

—John G. Saxe.

THE CHAMBERED NAUTILUS.

This is the ship of pearl, which, poets feign,
Sails the unshadowed main,—

The venturous bark that flings
On the sweet summer wind its purpled
wings

In gulfs enchanted, where the Siren sings,
And coral reefs lie bare,

Where the cold sea-maids rise to sun their
streaming hair.

Its webs of living gauze no more unfurl;

Wrecked is the ship of pearl!

And every chambered cell
Where its dim dreaming life was wont to
dwell,

As the frail tenant shaped his growing shell,
Before thee lies revealed,—

Its irised ceiling rent, its sunless crypt un-
sealed!

Year after year beheld the silent toil

That spread his lustrous coil;

Still, as the spiral grew,

He left the past year's dwelling for the
new,

Stole with soft step its shining archway
through,

Built up its idle door,
Stretched in his last-found home, and knew
the old no more.

Thanks for the heavenly message brought
by thee,

Child of the wandering sea,

Cast from her lap, forlorn!

From thy dead lips a clearer note is born
Than ever Triton blew from wreathed horn!

While on mine ear it rings,
Through the deep caves of thought I hear
a voice that sings:—

Build thee more stately mansions, O my
soul,

As the swift seasons roll!

Leave thy low-vaulted past!

Let each new temple, nobler than the last,
Shut thee from heaven with a dome more

vast,

Till thou at length art free,
Leaving thine outgrown shell by life's un-
resting sea!

—Oliver Wendell Holmes.

THE DESTRUCTION OF SENNACHERIB.

The Assyrian came down like the wolf on
the fold,
And his cohorts were gleaming in purple
and gold;
And the sheen of their spears was like stars
on the sea,
When the blue wave rolls nightly on deep
Galilee.

Like the leaves of the forest when sum-
mer is green,
That host with their banners at sunset were
seen;
Like the leaves of the forest when autumn
hath flown,
That host on the morrow lay withered and
strown.

For the Angel of Death spread his wings
on the blast
And breathed in the face of the foe as he
passed;
And the eyes of the sleepers waxed deadly
and chill,
And their hearts but once heaved, and for-
ever grew still.

And there lay the steed with his nostril all
wide,
But through it there rolled not the breath
of his pride;
And the foam of his gasping lay white on
the turf,
And cold as the spray of the rock-beating
surf.

And there lay the rider distorted and pale,
With the dew on his brow and the rust on
his mail;
And the tents were all silent, the banners
alone,
The lances unlifted, the trumpet unblown.

And the widows of Ashur are loud in their
wail,
And their idols are broke in the temple of
Baal;
And the might of the Gentile, unsmote by
the sword,
Hath melted like snow in the glance of the
Lord.

—Lord Byron.

THE BURIAL OF SIR JOHN MOORE.

Not a drum was heard, not a funeral note,
As his corse to the ramparts we hurried;
Not a soldier discharged his farewell shot
O'er the grave where our hero we buried.

We buried him darkly; at dead of night;
The sods with our bayonets turning,
By the struggling moonbeams' misty light,
And the lantern dimly burning.

No useless coffin enclosed his breast,
Nor in sheet nor in shroud we wound
him;
But he lay like a warrior taking his rest,
With his martial cloak around him.

Few and short were the prayers we said,
And we spoke not a word of sorrow;
But we steadfastly gazed on the face of
the dead,
And we bitterly thought of the morrow.

We thought—as we hollowed his narrow
bed,
And smoothed down his lonely pillow—
How the foe and the stranger would tread
o'er his head,
And we far away on the billow!

Lightly they'll talk of the spirit that's gone,
And o'er his cold ashes upbraid him;
But little he'll reck, if they let him sleep
on
In the grave where a Briton has laid him.

But half of our heavy task was done,
When the clock tolled the hour for re-
tiring,
And we heard the distant and random gun,
That the foe was suddenly firing.

Slowly and sadly we laid him down,
From the field of his fame fresh and
gory.
We carved not a line, we raised not a stone,
But left him—alone with his glory!

J. Wolfe.

GEMS OF THOUGHT

The test of your Christian character should be that you are a joy-bearing agent to the world.
—*Beecher*.

"To widen your life without deepening it is only to weaken it."

In the cultivation of soul, we are entirely our own master. Who is to say us nay, if we wish to grow and expand in tenderness, thoughtful consideration for others, love?
—*Thomas Van Ness*.

Why do we so often prefer to believe in the *necessity* of suffering and weakness rather than in the possibility of strength and gladness?
—*C. B. Newcomb*.

"The careless use of other people's names is one of the evidences of untrained thought."

To him who has an eye to see, there can be no fairer spectacle than that of a man who combines the possession of moral beauty in his soul with outward beauty of form, corresponding and harmonizing with the former because the same great pattern enters into both.
—*Plato*.

Things without remedy,
Should be without regard: what's done is done.
—*Shakespeare*.

Live not without a friend: The Alpine rock must own
Its mossy grace or else be nothing but a stone.
—*W. W. Story*.

Find your niche and fill it. If it be never so little, if it is only to be hewer of wood and drawer of water, do something in this great battle for God and truth.
—*Spurgeon*.

Finish every day and be done with it. You have done what you could. Some blunders and absurdities no doubt, crept in; forget them as soon as you can.
—*Emerson*.

What men want is not talent, it is purpose; not the power to achieve, but the will to labor.
—*Bulwer Lytton*.

Then you think the Judge will be satisfied if you say, "Lord, I had so many names in my visiting book, and so many invitations that it was impossible for me to attend to these things?"
—*George Macdonald*.

Good impulses and good intentions do not make action right or safe. In the long run, action is tested not by its motives, but by its results.

—*David Starr Jordan.*

Our destiny is our own and it must be worked out—perhaps in fear and trembling—in our own way. If there be a cherished American doctrine the controlling question must be: Is it right? If yea, then let us stand by it like men; if nay, have done with it and move forward to other issues.

—*William McKinley.*

The man who has begun to live more seriously within begins to live more simply without.

—*Phillips Brooks.*

Let us not concern ourselves about how other men will do their duties, but concern ourselves about how we shall do ours.

—*Lyman Abbott.*

However good you may be you have faults; however dull you may be you can find out what some of them are, and however slight they may be you had better make some—not too painful, but patient efforts to get rid of them.

—*Ruskin.*

Contentment comes neither by culture, nor by wishing; it is a reconciliation with ones lot, growing out of an inward superiority to our surroundings.

—*J. K. McLean.*

Do we know ourselves or what good or evil circumstances may bring from us? Thrice fortunate is he to whom circumstances is made easy, whom Fate visits with gentle trial, and Heaven keeps out of temptation.

—*Thackeray.*

For sure as the morning follows
The darkest hour of the night,
No question is ever settled
Until it is settled right.

—*Ella Wheeler Wilcox.*

Weakness on both sides, is we know, the motto of all quarrels.

—*Voltaire.*

Every man stamps his value on himself; the price we challenge for ourselves is given us.

—*Schiller.*

You are either a magnet that attracts all things bright, desirable, healthy and joyous—or one that draws all things disagreeable, gloomy, unhealthy and destructive.

—*Quigley.*

Here you stand at the parting of the ways; some road you are to take; and as you stand here, consider and know how it is that you intend to live. Carry no bad habits, no corrupting associations, no enmities and strifes into this New Year. Leave these behind, and let the Dead Past bury its Dead; leave them behind, and thank God that you are able to leave them.

—*Ephraim Peabody.*

There is but one good fortune to the earnest man. This is opportunity; and sooner or later, opportunity will come to him who can make use of it.

—*David Starr Jordan.*

So every sweet with soure is tempered still,
That maketh it be coveted the more;
For easie things, that may be got at will,
Most sorts of men doe set but little store.

—*Edmund Spencer.*

It is only a poor sort of happiness that could ever come by caring very much about our own pleasures. We can only have the highest happiness, such as goes along with being a great man, by having wide thoughts and much feeling for the rest of the world as well as ourselves.

—*George Eliot.*

"Once open the door to trouble, and its visits are three-fold; first anticipation; second, in actual presence; third, in living it over again. Therefore never anticipate trouble, make as little of its presence as possible, forget it as soon as past."

WHEN MY SHIP COMES IN.

Summer and winter are one to me,
And the day is bright, be it storm or shine,
For far away, o'er a sunny sea,
Sails a treasure vessel, and all is mine.
I see the ripples that fall away
As she cleaves the azure waves before;
And nearer, nearer, day by day,
Draws the happy hours when she comes to shore.
"But what if she never comes?" you say,
"If you never the honor, the treasure gain?"
It has made me happier, day by day,
It has eased full many an aching pain;
It has kept the spirit from envy free,
Has dulled the ear to the world's rude din.
Oh! best of blessing it's been to me,
To look for the hour when my ship comes in.

—*Whitelaw Reid.*

To seek knowledge is better than to have knowledge.

—*David Starr Jordan.*

The tissues of life to be, we weave with colors all our own,
And in the field of destiny, we reap as we have sown.

—*Whittier.*

If a good face is a letter of recommendation,
A good heart is a letter of credit.

—*Bulwer.*

Who'er aspires unweariedly
Is not beyond redeeming.

—*Goethe.*

What to us is gibe or frown?
 What have we to cast us down?
 Soul! Arise! assume thy crown:
 Turn thy features from the wall,
 Make the stature grand and tall,
 See, the Lord is over all. —*Richard Realf.*

"Think of yourself as on the threshold of unparalleled success. A whole clear, glorious life lies before you. Achieve, achieve."

Never esteem anything as of advantage to thee that shall make thee break thy word or lose thy self-respect.

—*Marcus Aurelius.*

"The cloudiest night has a hint of light
 Somewhere in its shadows hiding,
 And it's better far to hunt a star
 Than the spots on the sun abiding."

So here has been dawning another blue day;
 Think, wilt thou let it slip useless away?
 Out of eternity this new day is born;
 Into eternity at night will return. —*T. Carlyle.*

Go often to the house of thy friend, for weeds choke up the unused path.

—*Scandinavian Edda.*

Fame without happiness is but a sorry jest at best. What matters it to a thirsty man if his empty cup be of gold, or silver, or of finest glass?

—*Ellen Thorneycroft Fowler.*

We pass for what we are. Character teaches above our wills. Men imagine that they communicate their virtue or vice only by overt actions, and do not see that virtue or vice emit a breath every moment.

—*Emerson.*

"A fool praises himself; a wise man turns the job over to a friend."

Give thanks for what is instead of dwelling upon what might have been.

—*Lucy H. M. Soulsby.*

True contentment depends not on what we have. A tub was large enough for Diogenes; but a world too little for Alexander.

—*Charles Caleb Colton.*

Four things a man must learn to do
 If he would make his record true:
 To think without confusion clearly;
 To love his fellowman sincerely;
 To act from motives purely;
 To trust in God and heaven securely.

—*Henry Van Dyke.*

One day at a time! Every heart that aches
 Knowing only too well how long they can seem;
 But it's never to-day which the spirit breaks,
 It's the darkened future, without a gleam.

—*Helen Hunt Jackson.*

How poor are they that have not patience!
 What wound did ever heal but by degrees?

—*Shakespeare.*

Dark is the world to thee,
 Thyself art the reason why.

—*Tennyson.*

Friendship is a plant which can not be forced. True friendship is no
 gourd, springing in a night and withering in a day.

—*Charlotte Brontë.*

Honest good humor is the oil and wine of a merry meeting, and there
 is no jovial companionship equal to that where the jokes are rather small and
 the laughter abundant.

—*Washington Irving.*

Art thou little, do thy little well, and
 For thy comfort know
 The biggest man can do his biggest work
 No better than just so.

—*Goethe.*

The best is yet to be
 The last of life, for which the first was made.

—*Browning.*

"It is easier to *think* right than to *do* right."

He is a wise man who does not grieve for the thing which he has not,
 but rejoices for those which he has.

—*Epictetus.*

The deeper the feeling the less demonstrative will be the expression
 of it.

—*Balzac.*

I have no answer for myself or thee,
 Save that I learned beside my mother's knee;—
 All is of God that is or is to be,
 And God is good.

—*John G. Whittier.*

"Everybody knows that the sun has spots on it, and yet some people
 always expect a ten-year-old boy to be about perfect."

Refinement that carries us away from our fellow men is not God's
 refinement.

—*Henry Ward Beecher.*

True politeness is perfect ease and freedom. It simply consists in treating others just as you love to be treated yourself.

—*Lord Chesterfield.*

"I would rather be able to appreciate things I can not have, than to have things I am not able to appreciate."

He who has conferred a kindness should be silent, he who has received one should speak of it.

—*Seneca.*

For when the heart goes before like a lamp and illumines the pathway, many things are made clear that else lie hidden in darkness.

—*Longfellow.*

You and I must not complain if our plans break down if we have done our part. That probably means that the plans of One who knows more than we do have succeeded.

—*E. E. Hale.*

"A good word is as soon said as an ill one."
Our deeds still travel with us from afar,
And what we have been makes us what we are.

—*George Eliot.*

It matters not how straight the gate,
How charged with punishment the scroll:
I am the master of my fate,
I am the captain of my soul.

—*Elbert Hubbard.*

Our fathers' God! from out whose hand
The centuries fall like grains of sand,
We meet to-day, united, free,
And loyal to our land and Thee,
To thank Thee for the era done
And trust Thee for the opening one.

—*Whittier.*

Standeth God within the shadow,
Keeping watch above His own.

—*Lowell.*

There is nothing noble in being superior to some other man. The true nobility is in being superior to your previous self.

—*Hindoo Sayings.*

The man that will steal for you will steal from you, if he gets a chance.

—*Theodore Roosevelt.*

He who has learnt on solid grounds to put some value on himself, seems to have renounced the right of undervaluing others.

—*Goethe.*

Dare to be true; nothing can need a lie,—
A fault which needs it most grows two thereby.

—*George Herbert.*

We must not try to write the laws of any one virtue, looking at that only.

—*Emerson.*

No man can conceal himself from his fellows, for everything he fashions
or creates interprets him.

—*Hamilton Wright Mabie.*

As I watch men of affairs, I find one set who, as they say, make one
hand wash another. They are rushing round at one o'clock to pick up the
funds to pay the note which falls due at two. I find another set more
thoughtful who know to-day what they are to do next Friday—know, as
they would say, where they shall be next Saturday—who are thus prepared
in advance for any exigency.

—*E. E. Hale.*

Happiness, like mercy, is twice blessed; it blesses those who are most
intimately associated in it, and it blesses all those who see it, hear it, feel it,
touch it, or breathe the same atmosphere.

—*Kate Douglas Wiggin.*

God's poet is silence, his words are unspoken,
And yet how profound, how full and how far!
It thrills you, and fills you with measure unbroken,
And as soft and as fair and as far as a star.

—*Joaquin Miller.*

No one is really miserable who has not tried to cheapen life.

—*David Starr Jordan.*

No one is useless in this world who lightens the burden of it to any-
one else.

—*Dickens.*

It is almost always when things are all blocked up and impossible that
a happening comes. If you are sure you are looking and ready, that is all
you need. God is turning the world around all the time.

—*A. D. T. Whitney.*

No greater fortune can befall a child than to be born into a home where
the best books are read, the best music interpreted, and the best talk en-
joyed, for in these privileges the richest educational privileges are supplied.

—*Hamilton Wright Mabie.*

At sixty-two life has begun;
At seventy-three begin once more;
Fly swifter as thou nearest the sun,
And brighter shine at eighty-four.

At ninety-five

Shouldst thou arrive,

Still wait on God and work and thrive.

—*Oliver Wendell Holmes.*

Every success in life comes from sympathy and co-operation and love.
—*Benjamin Ide Wheeler.*

It is easier to preach ideals than to look facts squarely in the face.
—*Arthur T. Hadley.*

Blow not into a flame the spark which is kindled between two friends.
They are easily reconciled, and will both hate you.
—*From the German.*

Our opinion of people depends less upon what we see in them, than
upon what they make us see in ourselves.
—*Sarah Grand.*

“King Hassan, well beloved, was wont to say,
When aught went wrong, or any labor failed,
‘To-morrow, friends, will be another day!’
And in that faith he slept, and so prevailed.”

You must do the duty next your hand, that is certain; but of ten duties
next your hand you are to choose that which you do most happily, which
suits you best, or for which God fitted you.
—*Edward Everett Hale.*

God must have loved the common people. He made so many of them.
—*Lincoln.*

It is true there is much to be done, and perhaps you are weak-handed;
but stick to it steadily, and you will see great effects, for “constant dropping
wears away stones; and by diligence and patience the mouse ate in two the
cable; and little strokes fell great oaks.”
—*Benjamin Franklin.*

The only road to advancement is to do your work so well that you are
always ahead of the demands of your position. Our employers do not decide
whether we shall stay where we are or go on and up; we decide that matter
ourselves. Success or failure are not chosen for us; we choose them for our-
selves.
—*Hamilton Wright Mabie.*

Let us learn to be content with what we have. Let us get rid of our
false estimates, set up higher ideals—a quiet home; vines of our own plant-
ing; a few books full of inspiration; a few friends worthy of being loved;
innocent pleasures that bring no pain or sorrow.
—*David Swing.*

The trustworthiness of men trusted seems often to grow with the trust.
—*Woodrow Wilson.*

I hate a thing done by halves. If it be right, do it boldly; if it be
wrong, leave it undone.
—*Gilpin.*

Strive constantly to concentrate yourself; never dissipate your powers; incessant activity, of whatever kind, leads finally to bankruptcy.

—*Goethe.*

It is in every way creditable to handle the yardstick and to measure tape; the only discredit consists in having a soul whose range of thought is as short as the stick and as narrow as the tape.

—*Horace Mann.*

The successful man takes plenty of time for thought. He carefully looks the ground over, searches for weak and strong points, then adjusts himself to the needed conditions.

—*Dresser.*

When any one has offended me, I try to raise my soul so high that the offense cannot reach it.

—*Descartes.*

I think the first virtue is to restrain the tongue. He is nearest to the gods who knows how to be silent even though he is in the right.

—*Cato.*

If a man empties his purse into his head, no one can take it from him.

—*Franklin.*

The dispute about religion and the practice of it seldom go together.

—*Young.*

"A certain amount of opposition is a great help to a man; kites rise against and not with the wind."

Blessed is he who has found his work; let him ask no other blessedness. He has a work, a life purpose; he has found it, and will follow it!

—*Carlyle.*

Though we should be grateful for good houses, there is no house like God's out-of-doors.

—*Robert Louis Stevenson.*

Be not anxious about to-morrow. Do to-day's duty, fight to-day's temptation, and do not weaken and distract yourself by looking forward to things which you cannot see, and could not understand, if you saw them.

—*Charles Kingsley.*

If I do not keep step with my companions it is because I hear a different drummer. Let a man step to the music he hears, however measured, or however far away.

—*Thoreau.*

The faintest cheer sounds never amiss
 To the actor who once has had a hiss.
 And one who has dwelt with his grief alone
 Hears all the music in friendship's tone.
 So better and better I comprehend
 How sorrow ever would be our friend.

—*Ella Wheeler Wilcox.*

Quarrels would not last long if the fault was only on one side.

—*La Rochefoucauld.*

One can stop easily when he ascends, but not when he descends.

—*Napoleon I.*

Opportunities are swarming around us all the time, thicker than gnats
 at sun down. We walk through a cloud of them.

—*Van Dyke.*

Perpetual devotion to what a man calls his business is only to be sustained by perpetual neglect of many other things. And it is not by any means certain that a man's business is the most important thing he has to do.

—*Robert Louis Stevenson.*

We marvel that the silence can divide
 The living from the dead; yet more apart
 Are they who all life long dwell side by side,
 But never heart by heart.

—*Florence D. Snelling.*

Let your speech be better than silence, or be silent.

—*Dionysius.*

Better make penitents by gentleness than hypocrites by severity.

—*St. Francis de Sales.*

I've never any pity for conceited people, because I think they carry
 their comfort about with them.

—*George Eliot.*

Character is higher than intellect. A great soul will be strong to live,
 as well as to think.

—*Emerson.*

"Do not let your hands get too soft, it might go to your brain."

I do not know of any way so sure of making others happy as of being
 so one's self.

—*Sir Arthur Nelphs.*

A man cannot speak but he judges himself. Every opinion reacts on
 him who uttered it. You cannot do wrong without suffering wrong.

—*Emerson.*

The wise man will commit no business of importance to a proxy when
 he may do it himself.

—*L'Estrange.*

The block of granite which was an obstacle in the pathway of the weak, becomes a stepping stone in the pathway of the strong.

—*Carlyle.*

It is just as easy to form a good habit as it is a bad one. And it is just as hard to break a good habit as a bad one. So get the good ones and keep them.

—*President McKinley.*

The strength of your life is measured by the strength of your will. But the strength of your will is just the strength of the wish that lies behind it.

—*Henry Van Dyke.*

It is not effort, but fruitless effort, which makes work distasteful; and when we learn to use our powers rightly, we will go to our tasks as gladly as bees to their honey making.

—*Bishop J. L. Spaulding.*

I have never known a case of undiscovered merit, and I have never known a case where merit failed to achieve success. I have known many men gifted with great ability who failed miserably in life, but in every instance the failure arose from neglect to develop natural talent into trained capacity.

—*Bourke Cockran.*

Just take hold of the first thing that comes in your way. If the Lord's got anything bigger to give you, He will see to it.

—*A. D. T. Whitney.*

"A little thing, a sunny smile,
A loving word at morn.
And all day long the day shone bright,
The cares of life were made more light,
And sweetest hopes were born."

Do you think that because you have tried once and failed you cannot succeed? There is no condition that you cannot overcome.

—*Margaret Stowe.*

"The way to keep a man out of the mud is to black his boots," once said Frederick Douglass. The man with soiled shoes does not care where he walks.

There are nettles everywhere,
But smooth green grasses are more common still;
The blue of heaven is larger than the cloud.

—*E. B. Browning.*

Living will teach you how to live better than preacher or book.

—*Goethe.*

Make the most of yourself, for that is all there is of you.

—*Emerson.*

Trust in thine own untried capacity—
Some feet will tread all heights now unattained
Why not thine own?

—*Ella Wheeler Wilcox.*

The function of culture is not merely to train the powers of enjoyment, but first and supremely for helpful service. —*Bishop Potter.*

Be a life long or short, its completeness depends on what it was lived for. —*David Starr Jordan.*

Don't be gazing at the mountain and river in the distance, and saying, "How shall I ever get over them?" When you come to the mountain and the river you will come to the light and strength that belong to them. —*M. A. Kelty.*

O March that blusters and March that blows,
What color under your footsteps glows,
Beauty you summon from Winter snows,
And you are the pathway that leads to the rose.
—*Celia Thaxter.*

Remember that there is one thing better than making a living—making a life. —*Governor Russell.*

Stay at home in your mind:
Don't recite other people's opinions. —*Emerson.*

Who brings sunshine into the life of another has sunshine in his own. —*David Starr Jordan.*

"What right have you, O passer-by-the-way, to call any flower a weed? Do you know its merits, its virtues, its healing qualities? Because a thing is common shall you despise it? If so, you might despise the sunshine for the same reason."

A retentive memory may be a good thing, but the ability to forget is a token of greatness. —*Elbert Hubbard.*

The individuals whose lives are really valuable never ask any one how to make them so. —*Marie Corelli.*

"A wise old German said: 'I likes to give villingly; ven I gives villingly, it enjoys me so much, I gives it again.'"

What is Home?
"Where each lives for the other and all for God."
—*Helen L. Mattingly.*

Friends give flowers
To mark the hours
Of changing seasons as they roll—
Thoughts we give,
By them we live,
And thoughts are blossoms of the soul.
—*M. A. E. Benton.*



WRITING

The art of writing resulted from a desire to express thought to others beyond speaking or hearing distance, and, naturally, developed after people became too numerous to remain in close touch one with another. The earliest forms were mere pictures, drawn on chips or bark with burnt sticks, which, proving cumbersome, were gradually simplified in form until they attained, in the Persian and the Egyptian hieroglyphics, a permanent form of alphabet. As the idea-forms became more systematized the medium also became more durable, and we find the cuneiform writing with the stylus on baked clay tablets and the hieroglyphics on the monoliths and pyramids of ancient Egypt. Papyrus made from river reeds was used also, and later parchment, made from the tanned skins of animals.

Writing assumed the proportions of a fine art in the middle ages when, instead of the stylus, the brush was used (as is the case still with the Japanese), and parchment volumes were beautifully illuminated in gold and colors.

In more recent times the exigencies of business have demanded a more rapid method of recording and disseminating thought, and modern printing and typewriting have come, in many instances, to displace handwriting, but the time will probably never come when accomplishment in this line will not be desirable, and the necessity for its proper teaching in our public schools is still apparent.

TEACHING PENMANSHIP

OBJECTS:

LEGIBILITY—RAPIDITY—ENDURANCE

The three principal objects to be kept in mind in the teaching of writing are legibility, rapidity, and endurance. They are given in the order of their importance. To secure legibility, one must have a correct knowledge of letter forms, as well as proper training of the muscles used in making them. Legible writing is of little value for business purposes unless it is rapid, and rapid writing depends upon the proper mastery of movement. The proper mastery of movement also is necessary to enable a rapid writer to continue for long periods of time without fatigue. Other objects which are sometimes mentioned, such as ease, individuality, form, etc., follow naturally if these three are attained.

SYSTEMS OF PENMANSHIP

SLANT—VERTICAL—MEDIAL

Handwriting was originally vertical, but as the necessity of rapidity grew it assumed a slant toward the direction of progress, which seems to contribute somewhat to speed. For many years the system of writing taught in the schools required a very

pronounced slant to the right, and authors and teachers of writing came to insist that this slant be maintained uniformly by all pupils, irrespective of physical conditions affecting the writer. The over-emphasis of slant led to a reaction, so that about twenty years ago educators began to advocate the vertical writing. This system flourished for a time and came into quite extensive use. Although vertical writing when well done was very legible, especially as it usually employed simplified letter forms and did away with hair lines and ornamental flourishes, it proved to be less rapid than slant, and did not gain high favor among business men requiring much clerical work to be done by hand. Then, as usual in such cases, reason prevailed, and the pendulum, having swung from one extreme to the other, soon found its proper place. A medial slant, which has now been extensively adopted, bids fair to become the permanent

style. The medial fortunately retains the good features of the vertical, namely simplicity and roundness of letter form, freedom from unnecessary flourishes, and bold, clear lines, all of which tend to greater legibility. The better teachers of this system also avoid one other serious mistake of the old slant, in that pupils are not held to an absolute degree of slant, but, while aiming at a main slant of about 20° from the vertical, allow pupils such variation from this as the varying lengths of fingers and arms, relative height of body, desk, and seat, render most desirable with a view to the ease and comfort of the writer.



Position at Desk

height as to easily reach the elbow when the pupil is in the position described without requiring him to lean forward, the whole object being ease and comfort to the pupil with the least harm to any part of his body.

POSITION AT DESK.

The pupil should sit upright, squarely before the desk. The seat should be of suitable height to enable the pupil's feet to rest squarely on the floor; the desk should be of such

HOLDING THE PEN

The pen should be held in the position which will enable the pupil to write with the greatest ease and rapidity. For most people this is as shown in illustration. The wrist should be held above the desk to allow freedom of movement. For rapid writing the hand should glide upon the tips of the third and fourth fingers and the



arm should rest on the muscle of the forearm; but in primary children these muscles are not sufficiently developed and it is not until the fourth grade that much attention should be given to the subject of movement, of which these directions form a part. The earlier work of children should be with crayon or pencil, the use of pen and ink beginning at some point in the second grade, their introduction being gradual.

MOVEMENT

FINGER MOVEMENT

FOREARM MOVEMENT

COMBINED MOVEMENT

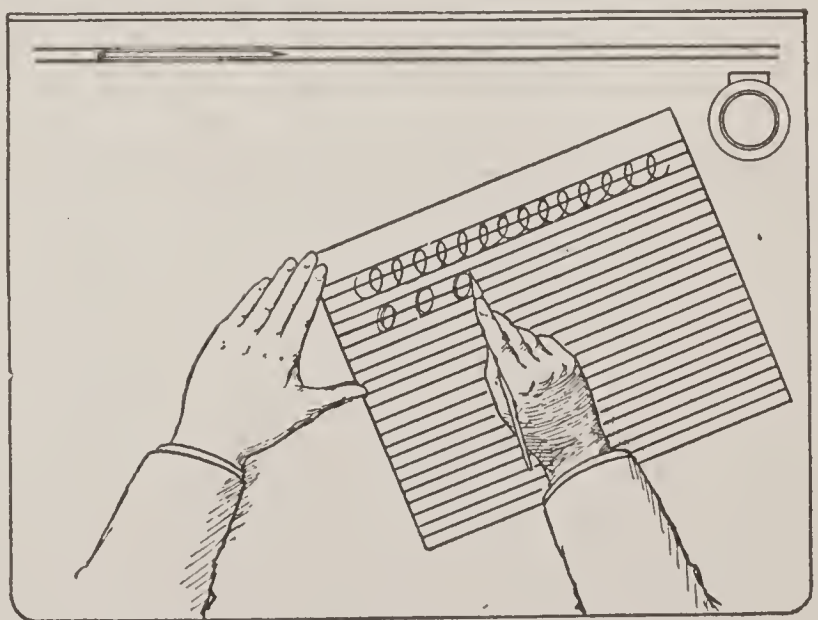
WHOLE-ARM MOVEMENT

The *finger movement* and the *whole-arm movement* are used in the primary grades; the former generally for writing at desk and the latter for blackboard work. The *forearm movement*, which is most used for business writing, is described as follows: Hold pen as shown in cut above, keeping the wrist well above the paper; rest the arm on the muscle of the forearm just in front of the elbow. Allow the hand to glide easily upon the tips of the third and fourth fingers, the muscular arm-rest serving as a pivot. In this movement the fingers and thumb should be held rigid.

The *combined movement* is much the same as the forearm, but allows some motion of the fingers and thumb in forming letters. Many rapid writers employ it. Pupils are not all alike as to the movement that should be adopted; it should be adapted to the child rather than that all children should be required to conform rigidly to some prescribed movement.

POSITION OF THE PAPER AND SLANT

If the pupil assumes the proper posture at the desk, as per illustration above, the position of paper before him, together with the length of his arm, the shape of his hand, and the relative height of desk and seat, will determine largely the degree of slant best suited to him. If the pen is allowed to move freely by the forearm movement, the up-and-down strokes will be practically vertical to the central line of the pupil's body. Should the paper be so placed that the ruled lines are parallel to the front edge of the desk, the writing will be also vertical to the paper. If long lines were not desired, this vertical writing would be as desirable as the slant, but to enable the hand to sweep freely across the page with the muscular rest of the arm as a pivot and at the same time to follow the ruled lines with the pen, it is necessary to turn the paper so that the ruled lines will be at right angles to the line of the forearm. The result of writing in this position, while still vertical to the central line of the body, becomes slant to the lines of the paper. The degree of slant will depend, as has been stated, largely upon the relative height of the pupil and his desk and the length and form of his arm and hand. While it is wise to have a certain standard of slant (about eighteen degrees from the vertical as the ideal), it seems unwise to require strict conformity to it on the part of all pupils.

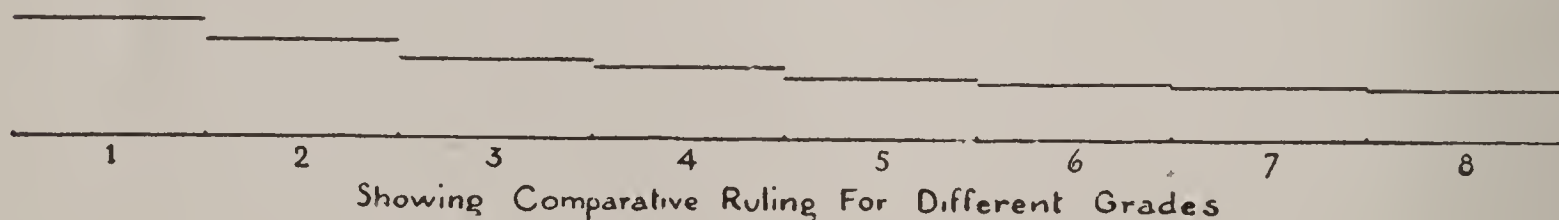


Position of Paper on Desk

PRIMARY GRADES

The teaching of writing in the first three grades has for its object mainly the mastery on the part of the pupil of correct letter forms. An accurate picture of the letter must be fixed in the mind before the hand can be trained to form it either accurately or rapidly. This mental picture is not to be gained by abstract study, however, but by imitative practice. For this reason movement is given little attention, and speed is a secondary consideration. For the first two months the writing should be done largely from blackboard copies written by the teacher; pupils should write on the blackboard when it can be allowed, and writing at the seats should be done on practice paper with pencils. The copy should be large and plain, and the pupils should be encouraged to form large, bold letters, both because of the immature eyesight of the child and of the uncertain mastery of the muscles used in writing. Later in the grades, the size of the letters will gradually diminish as the pupil gains better control.

The paper for the primary grades should be ruled wide, with a single base line. Other guide lines are not considered by most present-day teachers as desirable. The work is that of drawing rather than writing. He is studying the letter form, and at first slowly and painfully striving to reproduce it. Care should be taken that his position at the blackboard or at the desk is hygienic, and that he holds his pencil or crayon in such a way as not to cramp the hand; but little attention need be given to other considerations. The pupil probably has already been taught to write words and even sentences in his reading work, but his first, definite practice in penmanship should be upon single letters. Much of the practice throughout the first year should be on single letters, either on blackboard or on practice paper, but the writing of words and simple sentences may be introduced for variety. However, if much writing of words and sentences is done with the reading and language, the penmanship lesson



can be profitably devoted mainly to letters. The second and third year's work ought to continue much practice on letter forms, advancing gradually from the easier forms to the more difficult. The capital letters may be introduced gradually in the second year. The writing of words and sentences will be progressive with a view to proper drill on connections, the more difficult ones being reserved until the easier ones are mastered. The best modern copybooks are well graded in this particular and constitute a reliable guide. A good system of copybooks is recommended throughout, although they should be used sparingly in the primary grades. Some of the best systems present attractive pictures on the margins of the books illustrating the copies, which lend interest to the work. Often words and sentences from nursery rhymes are given. In the higher grades choice selections from literature, or facts in history or science are often given, which have a value to the pupil aside from that of a mere copy. These are commendable features in a copybook.

INTERMEDIATE GRADES

Beginning with the fourth grade, pupils are supposed to have gained a good knowledge of letter forms, and to have become skilled in constructing them legibly. Emphasis should now be placed upon proper pen holding, instruction and practice be given in movement, and more attention to speed, which should increase as the pupil advances in the grades. Posture at the desk and position of the paper on the desk

should be given continued care, both because of their important hygienic effects, and because they determine largely the degree of roundness and slant of letters.

Attention should now be given to speed-movement exercises, both in ovals and in uprights. Copies may be written on the blackboard by the teacher, or copyslips, which may be secured at very small expense from publishers, may be placed on the desk. Practice should continue on letter forms, and combinations of letters, and practice should be given also on words and sentences, with a little practice daily on ovals and letter exercises. This practice work is better done on practice paper, but it is valuable to have good copybooks with carefully engraved copies to finish up the day's exercises. In these the pupils record, in more carefully written lines, the results of the day's progress. While in the primary grades the chief object was legibility, with little attention to speed, now the aim is towards speed and ease of construction. A system of writing is valuable merely to gain this end, and is not an end in itself.

THE ADVANCED GRADES

After the sixth grade, pen holding, proper position at desk, proper movement, legibility, and a fair degree of speed are supposed to have become habitual. Practice should not, however, be discontinued. A definite daily writing lesson throughout the seventh and eighth grades is of distinct value. The large amount of hurried writing required and of careless work often permitted in connection with other school lessons has a great tendency to sacrifice legibility and symmetry, thus making continued definite practice in writing of importance. Daily practice from blackboard copies or good copyslips, and some neat work done each day in a good copybook, are of value. If the teacher is a good penman, other lessons or poems may be written on the board for reproduction as a penmanship exercise. If more attention were given to penmanship in all kinds of written work, less time would be needed in the higher grades on a definite writing lesson.

The advanced writing lesson can be employed to teach correspondence forms, business forms, commercial paper, the elements of bookkeeping, and much else of value to the pupil, besides skill in penmanship. Ornamental penmanship has little place in the public schools. The business college offers instruction in this for those who desire it. Writing in the public school is not an end in itself, but should be cultivated as a means of expressing thought on paper just as the art of reading should be taught as a means of gaining thought from the printed or written page. With its main objects always clearly in mind, the teacher should be able to instruct in this most useful art in a rational way, avoiding much of the lumber of the older systems.

LANGUAGE AND COMPOSITION

I. OBJECTS

The chief aims in teaching language are to develop the power of correctly expressing thought, both orally and in writing, and to arouse strong interest in the best literature, whether of knowledge or imagination. The mistakes children first make in the use of language are characteristic of the family or of the locality in which they have formed their habits of speech. Pronunciation, idiom, and accent immediately indicate from what country a person has come. Even in our own country there are many widely different dialects; the Southerner, for instance, has his own way of pronouncing and makes his own peculiar mistakes, and the same is true of every other section. To unify in accordance with the highest standards of our mother tongue; to eliminate crude mistakes, barbarisms, and provincialisms; and to create a preference for what is known as good English, is the ideal of every teacher of that form of expression commonly called language.

II. LANGUAGE WORK IN THE HOME

The home is the place for the first lessons in expressing one's thoughts. A child who regularly hears good English at home early gets a liking for correct forms and a taste for clear, forcible language. Incorrect habits of expression, once formed, are hard to overcome; and the likelihood is that early lack of training will show itself in a crude, ungrammatical speech which even persistent effort on the part of the teacher can only partially overcome. The mother, upon whom the greater responsibility for the child's habits of speech rests, should familiarize herself with the great stories written for children and tell and retell them. Fairy stories and nonsense rhymes afford both pleasure and relaxation and through them many important truths may be taught. Hearing them and retelling them gives the child his first taste and forms his earliest vocabulary. Furthermore, even before he can read them, the child should see and handle good books. Such familiarity breeds a taste, an inclination, a *habit*, that a whole library cannot give after he is grown up. Whittier never forgot his early reading of Burns; Lincoln attributed his clear, forcible English to his reading of the Bible, and Benjamin Franklin read and re-read "Pilgrim's Progress."

Equal to books in importance is the daily talk in the home. Allowing the children to take part in the conversation at the table, while not monopolizing it, and encouraging them to express their own opinions, help to make them easy and fluent talkers.

III. LANGUAGE LESSONS IN SCHOOL

A. IN THE LOWER GRADES. Much of the earlier work in composition will be oral and will take the form of conversation. The children should be led to tell about their daily experiences, and the greatest freedom of speech should be allowed on topics that will excite the interest and promote prompt, ready remarks or discussion. A live canary or mounted bird, a picture, or a new book will bring out an interesting series of adjectives. Opposites to these adjectives (antonyms) may be required and the best chosen. In the same way a conversation about a game, or something that children can make or do, will bring out a fund of action words, and

names of processes. Simple current events may be discussed even during the first year. The character of the child's environment out of school will be evident in the types of stories he will tell at first, and for this reason an exercise like this, especially early in the year, gives the teacher both a valuable insight and a means of meeting her pupils on their own grounds. A little later she can teach the difference between mere gossip and things really worth repeating and remembering. Actual happenings descriptive of country or city life are of great value because of the human interest in them. A vivid picture of a worthy deed, or a stirring account of great actions, awakens the imagination, and forms a new ideal. If the story comes from a foreign land it brings with it a knowledge of a life and people far away and creates an interest in books of travel and adventure. In the earliest day history was merely a series of stories told to the people who, unable to buy books for themselves, absorbed all their knowledge from merely listening and discussing the story among themselves later. The modern teacher uses the same plan in teaching both history and geography.

The birthdays of patriots, poets, and other famous people occurring during the school year, give opportunity for many interesting exercises. The national and state holidays, and those commemorated by the raising of the flag, are suggestive of others. The birthday of a painter gives occasion for a lesson on one of his best pictures. By means of questioning the children will see many things not noticed at a first glance. They readily weave their ideas into stories of their own and a few lessons bring out not only an interesting variety of original productions, but an astonishing increase in the powers of observation, discrimination, and the power to hold details together. A scrap book or box of pictures should be kept for this work and, as much as possible, it should be adapted to the lessons.

Myths, folklore stories, fables descriptive of winds, weather, stars, plants, or animals, may be made the basis of general lessons for months at a time. These should be selected from authors who do not dwell on hidden meanings but who tell their stories directly by means of the actions of their characters. Such stories arouse mental comparisons and foster ideals of courage, fidelity, loyalty to truth, heroic endurance, etc.

Every lesson conducted with a primary class, no matter what the subject, should be followed at once by a re-telling on the part of the children. There must be much talking as well as reading and writing, to produce language power. No matter how short the period devoted to the language lesson, it should always allow time for the children to take part by reproducing orally what the teacher has been telling, for this is the teacher's only means of enforcing the moral, emphasizing correct forms, and ascertaining the incorrect forms that the class habitually uses. Upon the way the children reproduce the lessons she must base her corrective work, for only in this way will it be vital and bear relation to other lessons and to the pupils' permanent habits and later life. The following is an illustration of a lesson conducted for corrective purposes:

TYPE LESSON FOR CORRECTION OF ORAL LANGUAGE

(List to be kept in the teacher's desk)

- | | |
|------------------|--------------------|
| 1. Seen for saw. | 5. Came for come. |
| 2. Me for I. | 6. Went for gone. |
| 3. Him for he. | 7. Awful for very. |
| 4. Her for she. | 8. Nice for good. |

Show quickly a hat, then hide it.

Ask, "What did you see?"

Answer, "I saw a hat."

Leave the room, then rap on the door.

Ask, "Who is it?"

Answer, "It is I."

Send out a child who will rap on the door.

Ask, "Who is there?"

Pupils answer, "It is he," or "It is she."

Send out a pupil to return immediately.

"Who has come back?"

"Henry has come."

Send out another pupil.

"Who has gone?"

"Mary has gone."

"What is the weather today?"

"It is very rainy."

Advance must be made largely by imitation of the instructor or other persons known to speak or write good English.

The strongest aids in this work always are the pupils who, outside the classroom, will persistently drill their associates whenever their incorrect pronunciation, or misuse of words already learned, attracts their attention.

Written language work should follow closely the lines of the oral lessons. As the child's vocabulary increases, simple compositions may be begun. Children delight in writing short stories, making lists of words, and correcting faulty sentences. By the third year simple letter forms may be introduced, together with elementary lessons in punctuation, paragraphing and capitalization, such as the use of interrogation points, quotation marks, periods, etc.

B. IN THE UPPER GRADES. From the fourth to the eighth grade the emphasis in language work will shift more and more from oral to written work and from matters of simple thought to questions more or less technical. Instead of being divided into oral and written language lessons the same work will be conducted under composition and formal grammar.

It is well to keep composition and grammar fairly distinct, correlating the language lessons with reading, geography, and history rather than with grammar, though the principles learned in grammar should of course be applied in composition work. Reproduction of stories, both oral and written, descriptions of pictures, accounts of the children's own experiences, and short compositions on themes suggested by the history or geography lessons may be carried upward from simple conversations or groups of short sentences to connected topical recitations or reports based on outlines.

OUTLINES.—The making of good outlines should receive considerable attention itself. Few children, when they reach high school age, know how to set out in a clear, vivid, and interesting way the salient points of a given topic. It is often well to begin by outlining the day's history lesson, passing from that to a more condensed plan of a whole period. Remember always that an outline, to be worth anything, should be suggestive, should present important facts and lines of discussion, and should not be merely a list of words. Too often, for instance, children are taught that the words birth, parentage, childhood, education, etc., constitute an outline of a man's life. To the wideawake teacher there are endless suggestions for work of this kind, and the very fact that it is somewhat mechanical makes it interesting to the boys and gives the girls that opportunity for neatness of execution which most of them delight to display.

LETTER WRITING.—A second important feature of written work in the upper grades is letter writing. This may be begun early in the form of letters inviting mothers to attend school exercises, of invitations to imaginary parties, or of short notes asking a favor or explaining a delinquency. As the children progress it is easy to let the work grow with them. In fact, no form of composition furnishes such possibilities of expansion as letter writing. Whatever anyone wishes to communicate

to anyone else is material, and why or how he wishes to say it gives opportunity for description, narrative, exposition, or argument. As an art, the friendly letter was once much more finished than it is now. The rush of modern life, together with the rapid and easy means of communication—not to mention the souvenir postal card, have made the long letter a thing of the past. As a result we have really forgotten how to write interesting, friendly letters. But there is a reaction against this. In some of the best schools letter writing is carried on constantly from the time the child learns to write. Everything he might wish to tell about—a simple incident, the subject-matter of his lessons, his games, his reading, is cast in the form of a letter and with it are taught the principles of adaptation to the reader, suspense, selection, clearness, and everything else that on the technical side makes a letter interesting.

The business letter is a field by itself, and to the child who has no skill in dressing up material for a personal letter it has its own appeal because of its strictly utilitarian purpose. It is well to have on hand a large collection of letters from business houses to show the class, both as models of technique and as illustrations of the directness, precision, courtesy, and brevity that business correspondence so well illustrates. The first letters will be abrupt, awkward, and clumsily put together. Present letter after letter, search good texts for models, and ceaselessly invent topics. A challenge to a football game, the imaginary purchase of a dictionary or map for the schoolroom, a request for an address by some well known lecturer, or a petition to the school-board, will furnish good exercises. On the side of technique the business letter should be thoroughly mastered. The children should be taught proper forms of heading, salutation, closing, addressing, etc., for every technical detail has a purpose and a distinct value in correspondence whose effectiveness often depends on appearances. Most of the newer composition books go into these forms exhaustively, and there are even two or three excellent texts prepared expressly for business schools which every teacher will do well to have as a reference.

In the seventh and eighth grades elementary work may be taken up in:

FORMS OF COMPOSITION.—1. *Exposition* is the art of explaining. Begin with simple exercises—a paragraph telling how some simple object is made, how a game is played, or how a process is carried through. Complicate the work by choosing more difficult material, especially such as will require reference work and carefully made sentences; for instance, an explanation of events leading up to a great war, an account of a complex process of manufacture, or an analysis of an abstract term. On the side of technique the principles involved are clearness, coherence, skill in transition from part to part, and the choice of words that shall make an otherwise abstract discussion interesting and alive.

2. *Description*. Much work has already been done in the lower grades—such as descriptions of common objects, places, and people. In the upper grades expand the work to include the descriptions of character, of moods, sounds, colors, crowds, modes of life, habits, etc. Only one great principle underlies good description—the choice of a single impression and the elimination of everything else, however interesting, that does not directly contribute to it.

3. *Narration*. As in the case of description, the elementary work may be expanded by letting it cover a wider range of subjects. Instead of simple incidents, require the students to write stories covering a longer period of time and involving the management of plot and character. In some schools excellent work is done in this field by requiring the children to work out a single plot and by conducting a series of lessons based upon it, naming characters, selecting a background, describing the principal scenes, and working together upon a climax and suitable ending. Children are wonderfully resourceful in gathering material and inventing varieties of expression. Once or twice let each child write a long story of his own. Frequently it is well to follow up story-writing with simple exercises in dramatization. Selections from the reading or history lessons often lend themselves to vivid presentation.

Scenes from *The Christmas Carol*, *Silas Marner*, or some of Hawthorne's stories are fine material.

4. *Debate.* By the time children have reached the upper grades the love of argument is well developed. It can be turned to excellent account in their composition work. Begin with simple compositions in which the children take sides upon some live question and let them write out their reasons. Later a formal question for debate may be introduced. Have the class choose sides and leaders. Often when interest in other forms of composition flags a debate will rouse enthusiasm. After a series in which all have taken part, it is often a good plan to let the four or six pupils who have done the best work represent the class in a final debate. Many new texts give excellent topics. Avoid the old hackneyed questions, especially those in which no decision is possible, such as a debate on the questions of the relative importance of two men or the relative usefulness of common objects or animals. Incidentally the children should be taught the technique of the debate—the form of stating a question, of opening, of closing the discussion, of addressing the audience, of conducting rebuttal, of meeting an opponent's arguments, etc. The children themselves take pleasure in conducting a formal discussion in a formal way, and under such conditions a school debate has a value that an aimless, unorganized discussion never can have.

GENERAL SUMMARY

In the lower grades composition work is largely oral. Its aim should be to encourage freedom of expression, to increase the range of the child's ideas and vocabulary, to eliminate crudities of expression, and by constant practice to develop a feeling for right forms. Subjects for language lessons should be chosen largely from the child's own experiences, from myths and fables told by the teacher, and from pictures. Little drill should be given in technical matters, though the child should be able to capitalize and punctuate simple compositions.

In the upper grades the work in Grammar and Composition should be kept distinct. More written and less oral work should be required. By the close of the eighth year the child should be able to write a clear, logical outline, and a good letter, either personal or business; also to do systematic work in the four main divisions of composition from the standpoint both of thought and of technique. (For work in Grammar, see section on GRAMMAR, which follows.)

SUGGESTIONS

- I. Do not repeat language exercises in the same manner for other classes which are in the room.
- II. Notice topics of conversation among pupils. Select such as are proper for oral debate, requiring short, impromptu statements of opinion.
- III. Let criticism include recognition of good work in speaking or writing. Adverse criticism, if given too often, is not a means of encouragement.
- IV. Vary oral work by originating new methods or by adopting those unusual to the pupils.
- V. Preserve the best written work of all pupils day by day. Return these lessons at a stated time to prove progress made.
- VI. Train pupils to read the results of their writing aloud. The ear will quickly detect the repetition of words not discovered by the eye.
- VII. Practice work with outlines of language lessons to be written. Use simple stories or descriptions and require pupils to write outlines of these, and later to use them in originating new compositions.
- VIII. Insist upon neatness in all written work.
- IX. Encourage the students to criticise their own work.

STUDY OF SPECIAL WORDS

RATHER: Comparative form of *rathe* (obsolete) meaning early.

As may be used as: a simple adverb; conjunctive adverb of degree, manner or time; coördinate conjunction; an adjective; conjunctive pronoun; an introductory word.

WHAT is used as: conjunctive pronoun; interrogative pronoun; interrogative adjective; an adverb of degree; an interjection; an adjective.

THAT is used as a demonstrative adjective; demonstrative pronoun; a conjunctive pronoun; subordinate conjunction; a mere introductory word.

SHALL and **WILL** are so often used interchangeably without reference to the thought to be expressed that most people make no distinction. *Will* is used as an attributive verb to assert determination, intention, or promise. *Shall* is used as an attributive verb to express a promise or an obligation. *Will* used as a copulative verb expresses future tense, being so used only with second and third persons. *Shall* used as a copulative verb, with first person only, expresses futurity also for all three persons in forming verb phrases in the subjunctive.

WOULD and **SHOULD** may be used:

As attributive verbs.

Indicative mode.

Would expresses a wish, a promise or determination.

Should expresses moral obligation or a promise.

Subjunctive mode.

Would expresses condition or dependence on a condition.

Should expresses a promise dependent on a supposition contrary to the fact.

As copulative verbs.

Indicative mode.

Would and *should* both express habit or likelihood.

Subjunctive mode.

Would expresses dependence on a condition.

Should used with all persons expresses a condition; with first person expresses dependence on a condition.

MAY and **CAN**:

Transitive attributive.

May expresses permission; *can* expresses ability.

Intransitive copulative.

May expresses possibility.

MUST:

Transitive attributive expresses obligation.

Copulative shows conviction on part of speaker.

HAVE:

Transitive attributive shows possession.

Copulative—in verb phrases.

Do:

Transitive attributive—shows accomplishment.

Copulative—to assert with emphasis.

BUT may be used as a coördinate conjunction; a preposition; a conjunctive pronoun; an adverb; a subordinate conjunction.

So is an adverb of degree or a pronoun.

GRAMMAR

GENERAL VIEW

1. DEFINITION:

Grammar is both a science and an art. As a science it teaches the principles of a language; as an art it teaches the application of those principles in the use of language according to established forms.

2. BENEFITS TO BE GAINED:

As an art the study of grammar is valuable chiefly because it teaches the use of good English. As a science grammar is valuable because it is the quickest means of acquiring the art. Other benefits are, mental discipline, and the general contribution that a knowledge of it furnishes to the education of any cultured person.

3. PLAN OF STUDY:

Analysis of the thought should precede analysis of the sentence.

The declarative sentence should be chosen first as other forms are but modifications.

Essentials should be studied first; adjuncts should be studied as added.

SENTENCE STUDY

I. ESSENTIALS:

A. Common to all sentences:

1. Subject.
2. Predicate.

B. Found in some predicates:

1. Object.
2. Attribute of Object.

C. Parts involved:

1. Noun or Pronoun.
2. Verb:
 - a. Complete.
 - b. Incomplete:
Copula,
Transitive,
Copulative,
Transitive copulative.

II. MODIFIERS OR ADJUNCTS.

Classes:

1. According to use:
 - a. Adjective.
 - b. Adverbial.
2. According to form:
 - a. Word.
 - b. Phrase.
 - c. Clause:
Adjective,
Adverbial,
Noun.

THE PARTS OF SPEECH

I. THE NOUN—a name.

A. Classes:

Common—class names.

Proper—individual names.

Collective—names of groups.

Abstract—names of qualities considered apart from objects.

Participial.

B. Inflection:

Nouns are inflected for number and case only.

1. Inflection for number is almost perfect, as most nouns (except abstract) have both a singular and a plural form. The general rule for forming plurals is to add *s* or *es* to the singular, though there are many exceptions. (*f* often changes to *v* and *y* to *i*. Some nouns change internally—goose, geese; wolf, wolves; lady, ladies. Some nouns add *en*—ox, oxen. Foreign words are pluralized according to the rules of the language from which they come.)
2. Inflection for case is very simple. English nouns have only two forms—the possessive, and the form used in all other constructions.
3. Inflection for gender consists in a change of words.

C. Constructions:

1. Subject of verb.
2. Objective uses:
 - a. Direct object.
 - b. Indirect object.
 - c. Objective complement.
3. Attribute complement.
4. Object of a preposition.
5. Subject of an infinitive.
6. Possessive modifier.
7. Noun in apposition.
8. Adverbial complement.
9. Independent uses:
 - a. As term of address.
 - b. By pleonasm.
 - c. In absolute construction.

D. To parse, give: class, number, case, gender, construction.

II. THE PRONOUN—a word used for a name.**A. Classes:**

1. Personal—pronouns which indicate the speaker, the person spoken to, or the person spoken of.
2. Demonstrative—pronouns which point out. Inflected for number and used in the same constructions as a noun except as a possessive modifier.
3. Interrogative—pronouns which ask for an unknown name. Used as subject, object, predicate noun, or object of a preposition. *Which* and *what* are not inflected; *who* is inflected for case only.
4. Conjunctive—pronouns which connect clauses and hold noun offices. They may be relative or indefinite.
5. Indefinite—pronouns whose antecedents are not expressed. They include comparatives, numerals, quantitatives, and distributives.

B. Inflection (of personal pronouns only).

Person—Since every form indicates a definite person, the inflection for person is complete. (Generally speaking, inflection is a *slight* change in the form of a word to show a different meaning. In the case of the pronoun the change is so radical that an entirely different word is used; as, for instance, the change from *me* to *us*. The word inflection is used to describe these changes.)

Number—The first and third persons indicate indefinitely one or more than one. The second person has only one number. Hence the inflection for person is only partial.

Gender—The inflection for gender is confined to the third person, singular number.

Case—In general there are three cases, though in the second person and in the third person, feminine and neuter, there are but two.

C. Constructions, same as nouns, though there are a few exceptions.

D. To parse, give: class, antecedent, if expressed; gender, if a third person, singular form; person, if a personal pronoun, number, case, and construction.

III. THE ADJECTIVE—modifier of a noun or pronoun.

A. Classes:

1. Qualitative—adjectives having an inflection which expresses varying degrees of quality. This inflection is called *Comparison*. The forms are the *Positive*, expressing merely the existence of the quality; the *Comparative*, signifying that two objects have been compared and that one possesses more or less of the quality than any of the others, and the *Superlative*, signifying that more than two have been compared and that one of them possesses the highest or lowest degree of the quality. Some adjectives are compared by forming an adjective phrase with *more* and *most*. Some (like *good*) are compared irregularly, and those expressing absolute quality (like *equal*) cannot be compared at all.

2. Participial—words in adjective form expressing the quality of verbs. Some called *participles* are discussed under “verbs.” There are two forms—the progressive, ending in *ing*, and the perfect, generally ending in *ed*, *en*, or *t*.

3. Quantitative—adjectives that restrict a noun by expressing limit or number.

Classes: a. Definite numerals.
b. Indefinite quantitatives.
c. Articles.

4. Locative—adjectives expressing case or position.

5. Pronominal—words which, though pronouns, become adjectives by modifying a noun.

Classes: a. Demonstrative.
b. Interrogative.
c. Conjunctive.

B. Inflection:

In most other languages adjectives change their form to agree in gender, number, and case with their nouns. English adjectives have neither gender nor case, and only *this* and *that* are inflected for number.

C. Constructions:

1. Attributive—the adjective as a direct modifier; as *red* apples.
2. Appositive—the adjective loosely joined; as *men*, old and young.
3. Predicative—the adjective used to complete the verb; as she is *tired*.

a. Attribute complement.
b. Objective complement.
c. Adverbial complement.

D. To parse, give: class, degree, and construction.

IV. THE VERB—a word which affirms or predicates concerning the subject.

A. Classes:

Complete—a verb which forms a complete predicate in itself.

Incomplete—a verb which requires an attribute in the form of

- a. A predicate nominative.
- b. An object complement.
- c. An object and an adjective complement.

B. Inflection:

1. Tense—inflection for tense is slight, as no single English verb can show more than present or past action. Other time-forms require verb phrases.
2. Mode—the property expressing the manner of the action. English verbs have the following modes:
 - a. Indicative mode.
 - b. Imperative mode.
 - c. Conditional mode.
 - d. Potential mode.
 - e. Subjunctive mode.
3. Conjugation—regular or irregular.
4. Person and Number—almost no inflection.

C. Verbals—words derived from verbs and having in addition to their verb nature the quality of an adjective or noun.

Infinitives—verbal nouns.

Participles—verbal adjectives.

D. Verb Phrases—These are auxiliary forms used to express those tense and modal ideas for which there are no inflected forms. Verb phrases are used to form:

- a. All future and perfect tenses.
- b. All progressive and emphatic forms.
- c. Passive forms.
- d. Conditional, potential, and obligative forms.
- e. Infinitive and participial phrases.

E. To parse, give:

1. Conjugation.
2. Principal parts:
 - a. The root infinitive.
 - b. Past tense form.
 - c. Perfect participle.
3. Mode, tense, person, number.
4. Agreement.
5. If phrase, how formed.

V. THE ADVERB—modifier of a modifier.

A. Classes:

1. Simple—adverbs of time and succession, manner, measure, degree, place, etc.
2. Conjunctive—adverbs used to connect clauses of time, place, manner, degree, cause, etc.

B. Inflection—adverbs are inflected to show degrees of quality. The great mass of adverbs, however, form adverbial phrases with *more* and *most*.

C. Construction.

D. To parse, give: kind, degree and construction (word modified).

VI. THE PREPOSITION is a word which brings a noun or a pronoun into a modifying relation by connecting it with some other element. As a separate element the preposition is a recent addition to the language, being, for the most part, formerly prefixed to verbs. In English there is the greatest freedom in the use of these words, the choice depending not only upon the idea to be expressed but upon many idiomatic forms. The preposition, with the noun or pronoun which it governs (the prepositional phrase) is, however, of the greatest importance in an uninflected language like English, for it expresses all the meanings for which other languages have distinct forms.

To parse a preposition, give:

- a. The idea conveyed by it.
- b. The elements connected by it.
- c. Value of the phrase (adverbial or adjective).

VII. THE CONJUNCTION—a connective of words, phrases or clauses.

A. Classes:

1. Coördinating—connecting elements of equal rank.
2. Subordinating—connecting elements in such a way that one becomes a modifier of another. The latter includes:
 - a. Conjunctive adverbs.
 - b. Conjunctive pronouns.
 - c. Noun connectives.

B. To parse, give: class and elements connected.

VIII. THE INTERJECTION is a word, phrase, or sentence expressing strong emotion. Interjections shade from simple words into complete sentences, or even may be composed of other parts of speech, especially the imperative form of a verb.

SPELLING

Spelling is like mathematics in one respect—its results must be exact. The adage, “A miss is as good (or bad) as a mile,” applies here. A word having one wrong letter or one letter in the wrong place is wrong, and the writer is entitled to no credit for being *nearly* right. This training in accuracy must be begun with the first word a child writes and should be kept up until there is no further need of it, until, in fact, he reaches the point where he rarely, if ever, misspells. It is a mistaken kindness to pass over a misspelled word without correction to avoid hurting the child’s feelings.

CAUSES OF POOR SPELLING

There are three principal causes for poor spelling: unfamiliarity, carelessness, and weariness (either mental or physical, frequently both). The wise machinist, in order to remedy any disturbance in his machinery, first determines the cause, then proceeds to make conditions right. So it should be with spelling; first determine the cause.

UNFAMILIARITY

What constitutes familiarity with a word and how is it to be gained? Spelling depends almost absolutely on memory, and in the article on memory we are told there are “eye-minded” people and “ear-minded” people. (See MEMORY, Vol. IV). This mental condition is the cause of some children learning more readily to spell words by hearing them spelled, while others learn better by seeing them written, or printed. The larger number employs both senses in about equal degrees. In fact, familiarity with the word will necessarily include acquaintance with its oral, written and printed forms. It was in recognition of this that the practice so long prevailed of having the child write a word twenty-five or even a hundred times in order to know it the next time. But such a remedy is worse than the fault. The child’s mistake was made, probably, through either carelessness or weariness. If the latter were true, repetition would aggravate the cause. If the former, get him interested in wanting to learn to spell. The child should be encouraged to make intelligent tests of his own memory of words, and be led to take an interest in his own mental development. He need not be told that this is the object because he is little interested in his own development. His chief concern is in being and in doing.

SAVING TIME

Capable people, the people who are doing things in the world, will tell you **that** they have no more time nor energy than the majority of others, but that they **learned** early in life to use only so much of either as was required for the work in hand, thus conserving their powers for other things. To spend an hour over a task when fifteen minutes would suffice is not only wasting forty-five golden minutes but is forming a bad habit. To require a child to write a word many times in succession is such a waste. He should be required to write it once, then cover it and try to think its spelling. Then have him spell it orally. As a final test let the pupil write it from memory. Except with unusual words this teaching will suffice, and you have avoided the pupil’s muscular and mental fatigue, also his resentment at having been punished. He **will**

soon realize that the less time it takes to learn a given, definite amount, the more time he has for play, or reading or work that he likes, and his mental growth is just as great. Teach him to test himself on new words, and never to allow a new word to pass until he has stamped its spelling and meaning on his memory. The next time he sees it he should recognize it as one of his permanent mental possessions. He cannot always have a teacher with him to point out his mistakes. The infant who has learned to go to sleep without being rocked has progressed a long way toward self-dependence; so a child who has formed the habit of learning to spell all new words as he meets them has solved for himself one of the most vexing problems of school life.

CARELESSNESS

If the word is perfectly familiar and you decide that poor spelling is due to carelessness, the case is a little harder. Try the red pencil cure. Draw marks around misspelled words everywhere, no matter what the subject may be. If this rouses resentment let the pupil get over it. Meanwhile, stick to your plan and have it definitely understood that *all* matter handed in is to be gone over carefully for misspelled words and that papers will not be accepted until they are *perfect* in the matter of capital letters, spelling, punctuation marks, indentation, and other facts, which should be learned in the earlier grades and which are such a rarity in the eighth. A few weeks of persistent effort along this line will cure most careless pupils and produce desired results. Nowhere in the whole field of school work does one need to exercise more tact and to use pleasanter tones of voice than here. In handing back an arithmetic paper, say pleasantly, "Yes, Harry, the *arithmetic* is good; but look at the spelling and punctuation. Can you not correct these errors?" When the paper is corrected and returned, look it over carefully, then prepare to red pencil it vigorously. He has now had an opportunity to give his attention to spelling alone and can not in fairness object to the marks you place on the paper. Children soon learn to appreciate a paper without red marks, and the training in carefulness is very valuable. The good-enough-for-me doctrine is responsible for many failures. It is a crime to lead a child to think that perfection is too much to expect. Perfection is within the reach of all of us if we reach far enough—and *we can*.

WEARINESS

We now come to the third cause of incorrect spelling. If a spelling test is made when pupils are mentally or physically tired, it is absolutely wrong to blame the children for mistakes. Keep this in mind, especially if spelling is the last thing on the program at night. At that time they are usually tired and cannot think to the best of their ability. If this seems to be the only time for the test, it is perhaps better to leave the correction of papers until next morning when minds and bodies are both fresh. It is a psychological crime to have a child pore over a spelling lesson when he is mentally exhausted. Give him something of a restful nature to do and require that he report for the spelling some other time. If necessary, excuse him from the class exercise until he is rested. Heretical? Yes. But this driving, compelling sort of teaching has not produced good spellers in this generation and a change can't do worse in the next; so let us adopt the more rational plan and see if better spelling will not result.

AIDS TO CORRECT SPELLING

So far we have dealt with the simpler phases of our topic—merely how to teach the accepted orderly arrangement of letters. This part of the work is what is known as orthography. Another branch dealing with correct pronunciation of words is called

orthoepey. Then, too, the meaning of a word has much to do with its spelling, so that needs attention.

It is advisable to stop occasionally and think how we learn new facts. We learn new facts largely by comparison with facts already possessed—by noticing similarities and differences; for example, *beat*, *beet*, to the “ear-minded” are the same; to the “eye-minded” they are very different. When one word is familiar another may readily be learned either through similarity of spelling, sound, or meaning, or, on the other hand, through being opposite in meaning, or through having different vowels or different endings, etc. This gives rise to various comparisons that are very useful and for convenience several classes of words are recognized; as, *antonyms*, *homonyms*, *synonyms*, *paronyms*.

Antonyms are words of opposite meaning; as, cheap, expensive; dark, light; old, new.

Homonyms are words of similar sound, but different spelling and meaning; as, heal, heel; stake, steak.

Synonyms are words of similar meaning but wholly unlike in spelling and sound; as, garb, dress; clad, clothed.

Paronyms are words having a common derivation; as, aster, disaster; asteroid, asterisk.

USE OF THE DICTIONARY

A careful and constant study of words as they are used will go far toward improving one's spelling. A constant use of the dictionary is necessary, not only to ascertain the meaning, spelling, and derivation of words already known, but to add new words to one's vocabulary and to add new uses for those already known. Make a test of this for yourself; go to an unabridged dictionary, open it anywhere, and select some word you use quite frequently. Read all that is said about it and see if you haven't added some fact you did not have before. Especially is this true in the study of synonyms. There are few pairs of words in English whose meanings are identical, and if their being synonyms depended on their being identical, we would have but few synonyms. Many words are interchangeable in some instances and not in others, as each may have several applications. This fact gives to the English language a richness not possessed by any other in the ability to express different shades of meaning. For example, Webster's Dictionary gives as synonyms of “toil,” labor, drudgery, work, exertion, occupation, employment, task, travail. No two have exactly the same meaning, and it is only by a study of the application of each that one can determine the word that will best express the thought in mind. The ability to choose words wisely largely determines the good writer and the good speaker.

The study of paronyms should be begun in a small way in the intermediate grades, though if a good opportunity offers itself earlier, it should be seized. If in nature study you are teaching the metamorphosis of insects you can bring out that *pupa* means much the same as puppy or baby. This will appeal to even the youngest child, and not only fix the new term indelibly but pave the way to the study of word analysis.

WORD ANALYSIS

In the study of affixes, which can be begun incidentally in the first grade by noting the meaning of *un* and *less* and a few other common affixes that the child uses in everyday speech, pupils have become familiar with the correct spelling of many troublesome words, such as those ending in *ent*, and *ant*; *ize* and *ise*; *ence* and *ance*; and others of that type. The analysis of words will put one in touch with new words and new combinations that will often enable him to understand, use intelligently, and spell words never seen or heard before. We learn that *graph* means write; *tele*, afar; *phono*, sound; so telegraph, phonograph, and telephone are easily learned and in this way new words are being coined to meet new conditions. We have almost daily

evidence of the tendency to coin new words. A recent example is *photoplay*. The newspaper and the short story are responsible for the quick dissemination of these new terms and while there are many such words given out to the public that are soon dropped, others find a permanent place in the language. Encourage the habit of looking up the meaning and derivation of each unfamiliar word and if it is an absolutely *new* word, one not given in the dictionary, (as photoplay), study it out from its derivation. This takes time and a little work, but it is worth while. A constant study of new words found in the daily reading will help to form the habit of close observation, so that the printed forms will impress themselves upon the memory and after a time one will learn the spelling of new words unconsciously.

RULES FOR SPELLING

We have said that spelling is largely a matter of memory, but the individual word need not always be remembered apart from others of its class. Many words naturally fall into classes conforming to certain rules, and the simpler of these rules can be learned and practiced before reaching the grammar grades, leaving the pupil free to make greater progress in the more technical work of word analysis. There is no reason for postponing the teaching of these rules until a definite, set time. They can be introduced in the earlier grades by a development process based upon comparison of new words with those already in the vocabulary of the pupils. Some rules, most perhaps, must be learned verbatim and examples studied to make them clear; but a little practice in originating rules will take away drudgery and pupils will see that the rule was formulated because of the spelling, and is not an arbitrary device to make learning harder. Convince a child that any rule or device will make work easier or more sure and he will readily adopt it and adapt it to his needs. The dictionary or any spelling book will give these rules. Have the pupil master them and he will find them a great aid to correct spelling.

Rules, word studies, and devices are excellent aids, but it must never be forgotten that they are only aids, and that it is necessary always to watch for new words and to learn them and to watch old words and to keep them. Eternal vigilance is the price of good spelling.

See SPELLING in *The Standard Reference Work*, where also will be found a discussion of Reform Spelling and the system of Phonetic Spelling recommended by the American Reform Spelling Association.

STORY-TELLING

REVIVAL OF STORY-TELLING

Among the recent and interesting educational phenomena is the revival of the story-teller's art. For a time the movement met with the distrust that what is suspected to be a mere fad always arouses. But it seems fair now to say that in the midst of a workaday world of science, commercialism, philanthropy, and a thousand other interests, the child's demand for a story has asserted itself and determined the character of a large part of his early education.



Looked at historically, the story-telling movement links the present day with the days of minnesingers and troubadours, for it takes us back to the time when a single speaker or singer brought within the imagination and comprehension of his hearers the tales of heroes, the splendor and the tragedy of great battles, and the myths and legends of other peoples and of long ago. In those days arts were crude, life was simple, virtues were elemental, and it is of such material that good stories are made. Nearer our own time the story-telling revival links us with earlier times in our own history, where, in many homes the story hour was regularly kept, though often it brought only the tales that had been told many times before.

As a result of the new interest, the literature and life of all peoples and of all times are being searched for good stories; and teachers and mothers in search of

material are eager for suggestions and sources. This article aims to present a few such concrete helps.

THE AIM OF STORY-TELLING

Story-telling can be made to answer a number of purposes. An ingenious teacher can make it the medium for conveying the facts of science, of history, or of geography. Every primary teacher, for instance, is familiar with stories illustrating certain facts of nature—such as “Why the leaves change their color in Autumn,” “How the robin came to have a red breast,” etc. But it is easy to overdo this.

To teach is not the primary purpose of a story, and children know it. They soon fall into an apathetic attitude when teacher or mother tells purely didactic stories. The stories they really enjoy are the stories that stir the imagination, excite the emotions, or enlarge the mental horizon by leaving a feeling that a new experience has suddenly been made their own. To give this vital pleasure is the fundamental end of story-telling—as it is of every other form of art.

KINDS OF STORIES TO TELL

1. FAIRY TALES

First among stories to tell children are fairy tales. The beginning—“Once upon a time”—kindles immediate response from the hour the child can understand language till he is well through the grades. No other class of stories gives such stimulus to active imagination or presents so vividly a new world with all sorts of strange things and interesting people. And yet, in the guise of simple images and through the medium of a certain mystery, fundamental truths are presented. The miserly prince is punished, the good child is rewarded, the cruel king comes to speedy justice; and so the fairy tale satisfies the demand for justice and fair play, for a development and a conclusion, and does this in a much more direct and simple way than is often the case in more formal art. Indeed the old fairy tales are often clearer as to message and more vital in tone than much that is written expressly for children today.

A further advantage of telling fairy tales is the fact that it prepares the child's understanding for the appreciation of good literature later. Allusions to fairy lore are common in great books and much of the grownup's pleasure in reading them is lost if he does not at once catch the force of the reference. For instance, much would be lost if one did not understand a reference to Aladdin's lamp, the ugly duckling, or King Midas' golden touch.

2. NONSENSE RHYMES

Even before a child can appreciate fairy tales he enjoys nonsense stories. For this reason they are also excellent to begin with. They develop a sense of humor, kindle an appreciation of a joke, or bring into view the whimsical, ridiculous, topsyturvy side of life—all of which it is well to foster early; for to be without it is a real defect in a grownup, and later, when the child's work becomes more serious, nonsense stories must of necessity be put aside. Generally the stories that please best are those in which the same jingle or refrain comes again and again. Repetitions, with slight variations, are the delight of little children. Aside from this prime essential, nonsense stories must be full of action, vivid, simple, and picturesque.

3. NATURE STORIES

As has been suggested before, the story should never be used solely as a means of conveying a lesson or teaching the facts of science. It is better to tell only a few nature stories and to tell these more for the sake of the stories than to bring home scientific truths. Many of the so-called nature stories are, moreover, unreliable as to facts, and it therefore behooves the teacher to select and to test her material carefully before she presents it for truth. Joel Chandler Harris' stories always please children. Others may be found in the books of James Whitcomb Riley, etc.

4. MYTHS AND LEGENDS (including FOLK TALES)

The special value in this form lies in the insight it gives the child into the conditions of life when nations were young, when arts were unknown, and when superstition, fear, and wonder were the motives that lay back of men's attitude toward their gods, their heroes, and the manifestations of nature. It matters little that the stories are not true in our sense. The spirit in which they reproduce the life of long ago is the essential thing. For the legends that grew up in the infancy of a race are a distillation of the life of the people. The one who knows the songs, myths, and tales of a people knows the people heart and core. In all of them there is the same large physical out-of-door life; the same brave men, good women, and fair fight.

In our own country there has recently been an interesting revival of Indian folklore rich in possibilities for story material. The same is true of the stories of early Germany, England, and Scandinavia. The adventures of Robin Hood, Irving's tales, the Odyssey, The Cid, and the Chanson De Roland, are all good material. In Lyman's *Story-Telling—What to Tell and How to Tell It* are some excellent helps for the telling of epics and folk tales. When stories are concerned chiefly with the gods and goddesses of a people, it is well to tell the stories in a connected series and to precede the whole with a little study of mythology. This does away with long explanations after the stories are begun.

5. HERO AND ADVENTURE STORIES

Little need be said for this class, for it is the treasure house of stories. The feeling of wonder at marvelous feats, of admiration for brave men, and of heroic exultation in perilous undertakings develops early, especially in boys. Moreover, the influence of heroes in the lives of children needs no amplification. Since the world began the greatest motive for action, as well as the determining factor in the formation of character, has been the force of great example. Stories of men who can do wonderful things stir the minds of children as nothing else does. They make their heroes their own, live their lives, achieve, endure, and triumph with them. And so it comes about that a child's ideal of what he wants to be when he is grown up invariably has its origin in his notion of greatness as exemplified by his favorite hero. At first it is the man with brass buttons, later the Robinson Crusoe type, the man of skill, of resourceful enterprise, that fascinates him; and finally he comes to see that heroes are not only bigger, stronger, more ingenious than other men, but just as truly kinder, more patient, more self-sacrificing. And this evolution from the physical to a more subtle and complex ideal gives a clue to the mother or teacher. Usually it is best to begin with mythical heroes—men of gigantic proportions and simple but sterling virtues. Let the stories chosen be those that deal with large, physical actions and material achievements, for these more or less external things the child can understand. From these pass to stories of heroes in the more complex sense—men of endurance, patience, skill; and to actions that require not so much huge muscles as foresight, faith, perseverance. The story of Hercules, for example, or of Jason and the Golden Fleece, could be told early; but only a child well up in the grades has a hero-ideal sufficiently developed to admire men like Socrates, Luther, or William Lloyd Garrison. In some schools hero study has been pushed so far that the possession of any worthy quality at once puts a man in the heroic class. The postman, for instance, is a hero for he never fails to bring us our letters; the ragman is a hero for he cheerfully performs his lowly labor, and so on;—it is easy to extend the list. Such a plan may have its value. It is true that children's ideals of heroism need enlargement and that too often we fail to see that lowly tasks call for heroic qualities. But in the hands of an unskilled teacher such a study might destroy the very object that it is designed to fulfill, for it would seem to put everyone with in class we instinctively reserve for only the greatest and best; and the end would be the shattering and not the building up of an ideal.

6. BIOGRAPHICAL STORIES

When a child has outgrown fairy tales and lost interest in the exploits of mythical heroes, he usually begins to ask for "true stories." For this stage the biographical stories offer a wide field. According to some authorities, history is only a succession of biographies. If this be true, biographical stories have an immense value. Hitherto they have been neglected because it was thought that no art was required—merely ability to recount facts. The truth is that the biographical story presents a double problem, for out of dull material the subject must be re-created, made vivid, and presented in the life and color of the past.

Usually it is better to begin with simple, picturesque tales which can be told just as they are written without much effort at adornment. From these, progress to stories which depend somewhat upon atmospheric effects. The story of Garibaldi, of Napoleon, or of Robert the Bruce, for instance, could not well be told without a little preliminary study of the life and conditions of the times in which these men lived. In stories like that of Joan of Arc there is a further problem, for it consists of heroic deeds plus devotion to an ideal (which must be understood), plus a certain racial or religious atmosphere (which must be appreciated). Sarah K. Bolton's *Lives of Poor Boys Who Became Famous*, Baldwin's *Fifty Famous Stories*, and Lang's *A True Story Book*, are sources from which excellent material may be obtained.

PREPARATION FOR STORY-TELLING

1. *Appreciate your story.* Unless you can enter fully into the story you tell, you cannot make the children enjoy it. Don't think that the children may like it though you do not. They are quick to distinguish between pretended and real appreciation. Better not tell a story at all (even though you know it is a good one), unless you have made it so completely your own that it seems to emanate from your personality.
2. *Know your story.* Know it thoroughly as a whole and in detail. After you are once started, let there be no hesitancy, no feeling for words, no uncertainty as to what is coming next. See the end from the beginning, and know by just what steps you are to arrive at the conclusion in order to create and maintain the illusion of reality. Without this illusion the story is a failure, for it is the power to make the unreal seem real that makes story-telling a fine art.
3. *Be in the mood of your story.* If you are to tell of heroic exploits, approach your story in the spirit that great heroes inspire. Otherwise it becomes dull and commonplace and misses its aim. A story of noble adventure fails if told in a cold, matter-of-fact tone. In the same way stories of human tenderness and pathos must be told in their own spirit. For a similar reason, tales of mystery and wonder call for an appreciation of unreal things. Everyone knows how dismally a humorous story fails when told by someone who does not see the joke.
4. *See more than you say.* If, for instance, you are to tell a story from Greek mythology, you must know more about Greek worship and Greek gods than your story calls for. Otherwise it will seem bare and detached to you and hence to your hearers. But if it is only an illustration, a fragment out of the fullness of your knowledge, it will at once take on life and color. A story, to be successful, must leave a feeling that the teller could go on with many more of the same kind.
5. *Tell the story simply, directly, and without affectation.* Avoid unnecessary or high sounding phraseology. Go directly to the point without circumlocution or lengthy explanations. Above all, let your manner be genuine and unaffected. Gestures, facial expressions, or any attempts at imitating characters should, as a rule, be avoided. Children's imaginations readily round out the story with action if it is well told. If not, gestures will only call attention to themselves and not to the story.

6. *Do not speak in a loud, strained voice.* The result will be either a harsh, metallic tone or an equally unpleasant nasal quality. The average schoolroom requires almost no effort beyond the conversational tone. Authorities tell us that under average conditions from five hundred to eight hundred people can hear a moderately pitched voice if it is clear and moderately held. It is excellent practice to repeat the story aloud to one's self several times before telling it to the class. Professional story-tellers testify to the improvement that results from this habit, especially if, at the same time, the speaker listens to his own voice. By this means he can detect and correct in himself the same faults he would criticise in another.
7. *Take a good position.* If the story is to be told to a small group, it is best to seat the children in a semi-circle, the teacher facing them. If this be impossible, let the teacher stand well in front of the first row of desks so that all may hear without straining. After the story is once begun do not interrupt by calling for order or reproving individual students.

THE ADAPTATION OF STORIES

Many stories that would make excellent material for home or school use are not readily available in usable form. Although every year sees an enormous output of adaptations, the revival of story-telling is as yet so recent that much fine material is still untouched, or at least not written in such shape that it can be given directly to children. Great myths and allegories, for instance, oftenest appear in severe library style; stories of heroes generally take the form of blank verse; and even simple incidents are often treated in such artistic forms that to tell them to children in this way would be useless. There is thus a constant necessity for adaptation or revision on the part of mother or teacher. Following are a few simple suggestions for such work:

1. *Carefully analyze your story.* Just what is it about? What is the point it aims at and how does it get at it?
2. *Determine what is absolutely necessary* and cut out everything else, such as long introductions, unnecessary personages, irrelevant events, etc. Get the story into a skeleton form that suggests the main action, the persons concerned with it, and the point or issue of it.
3. *Put the story into simple language.* Be careful, however, not to "talk down" to the children. Introduce direct conversation as often as possible; tell in his own words just what the character said and be as concrete as possible in descriptive parts. Avoid general terms. Use vivid, lively, specific language.
4. *Adopt the mood, tone, and point of view that to you seems best for carrying the story home.* Keep the same point of view throughout. Have the end in mind from the beginning.

THE REPRODUCTION OF STORIES

1. *Personal Ownership.* Stories told to children are never complete until they have been reproduced by them. The simplest and most natural way is to let the children tell the teacher's or mother's stories back again on the day after they are given. In some places this plan has been enlarged upon by letting each child call that story his own which he can tell the best. The idea has been immensely successful. "The Fox and the Grapes," for instance, belongs to John because his re-telling was the best. For the same reason Mary claims "The Three Bears," and so on. Whenever visitors come to the school two or three children may be allowed to tell their stories.
2. *Playing the Story.* Children readily clothe their characters with action and supply gaps in the narrative with pantomime. For this reason they enjoy playing out their favorites. Such stories as "William Tell," "Little Red Riding Hood,"

"Half Chick," and "The Hare and the Tortoise," lend themselves readily to dramatization. Even when there are only one or two characters, it is possible to re-tell the story in action, if the children have been encouraged in freedom and spontaneity. Often children enjoy exchanging characters until each has taken every part.

3. *Cutting out the Story.* In some schools, when paper cutting and drawing are given considerable attention, it has been found a good plan to let the children cut out the principal characters — and even whole groups — engaged in some important action of the story. Such an exercise is a good test of how well the child has visualized the personages and how clear a notion he has of their appearances and characteristics. For instance, though the result may be somewhat crude, a child's figure of a witch, of George Washington, of a cotton plant, etc., is likely to indicate pretty clearly his idea of it.

THE LAND OF STORY-BOOKS

At evening when the lamp is lit,
Around the fire my parents sit;
They sit at home and talk and sing,
And do not play at anything.

Now, with my little gun, I crawl
All in the dark along the wall,
And follow round the forest track
Away behind the sofa back.

There, in the night, where none can spy,
All in my hunter's camp I lie,
And play at books that I have read,
Till it is time to go to bed.

These are the hills, these are the woods,
These are my starry solitudes;
And there the river by whose brink
The roaring lions come to drink.

I see the others far away
As if in firelit camp they lay,
And I, like to an Indian scout,
Around their party prowled about.

So, when my nurse comes in for me,
Home I return across the sea,
And go to bed with backward looks
At my dear land of Story-books.

—Robert L. Stevenson.

STORIES TO TELL

RHYMES AND STORIES FOR LITTLE ONES.



ROCK-A-BYE, BABY

Rock-a-bye, baby, the moon is a cradle,
A bright shining cradle, swung up in the sky.
The stars are the pillows, so soft and so downy,
Rock-a-bye, baby, bye-bye-bye.

Rock-a-bye, baby, dear blue eyes so tired,
Playtime is over and sleepy time nigh.
The Sandman is coming to take you to Dreamland,
Rock-a-bye, baby, bye-bye-bye.

Hickory,

Dickory,

Dock.

The mouse ran up
the clock.

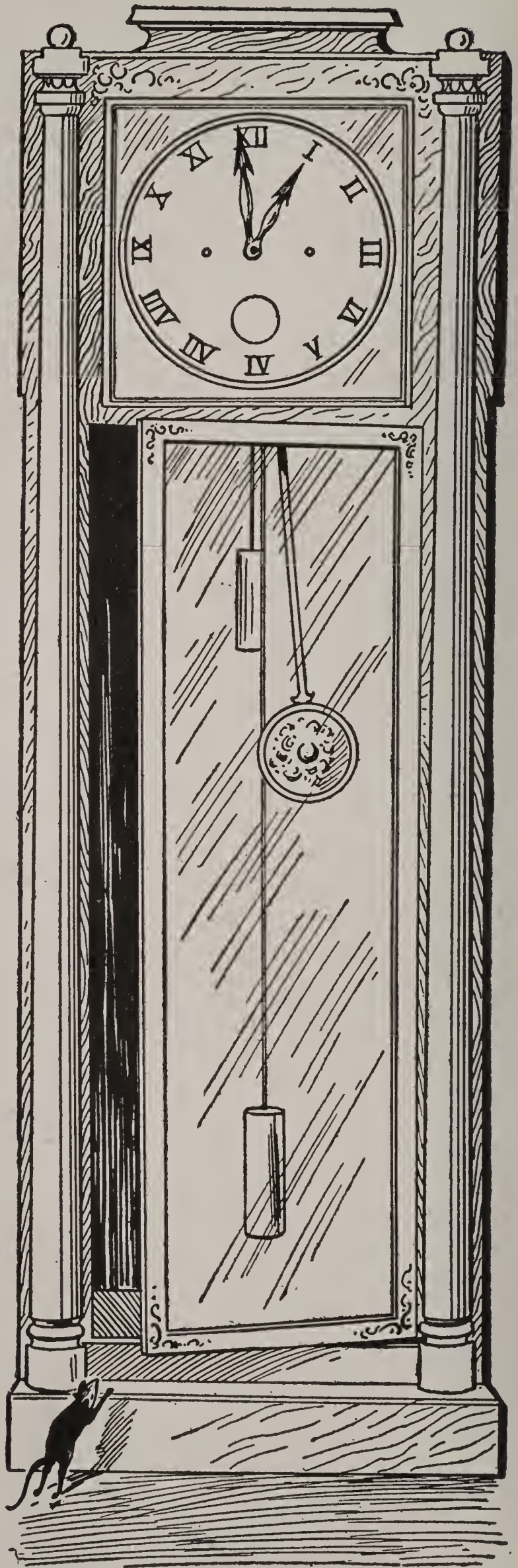
The clock struck
one,

And down he did
run,

Hickory,

Dickory,

Dock.





THE LITTLE MAN

Once there was a little man who lived by himself,
And all the bread and cheese he had, he put upon the shelf.
The rats and mice they made such a strife,
He was 'bliged to go to London and buy him a wife.
The roads were so wide and the streets so narrow,
He had to take his wife home on a wheelbarrow.
The wheelbarrow broke and the wife caught a fall,
And down came the wheelbarrow, wife, and all.



“DAME WIGGINS OF LEE”

Dame Wiggins of Lee
Was a worthy old soul,
As e'er threaded a needle,
or wash'd in a bowl;
She held mice and rats
In such antipa-thy,
That seven fine cats
Kept Dame Wiggins of Lee.

The rats and mice scared
By this fierce whisker'd crew,
The poor seven cats
Soon had nothing to do;
So, as any one idle
She ne'er loved to see,
She sent them to school,
Did Dame Wiggins of Lee.

The Master soon wrote
That they all of them knew
How to read the word “milk”
And to spell the word “mew.”
And they all washed their faces
Before they took tea:
“Were there ever such dears!”
Said Dame Wiggins of Lee.

But soon she grew tired
Of living alone;
So she sent for her cats
From school to come home.
Each rowing a wherry,
Returning you see:
The frolic made merry
Dame Wiggins of Lee.

The Dame was quite pleas'd
 And ran out to market;
 When she came back
 They were mending the carpet.
 The needle each handled
 As brisk as a bee;
 "Well done, my good cats,"
 Said Dame Wiggins of Lee.

They called the next day
 On the tomtit and sparrow,
 And wheeled a poor sick lamb
 Home in a barrow.
 "You shall all have some sprats
 For your humani-ty,
 My seven good cats,"
 Said Dame Wiggins of Lee.



To give them a treat,
 She ran out for some rice;
 When she came back,
 They were skating on ice.
 "I shall soon see one down,
 Aye, perhaps two or three,
 I'll bet half-a-crown,"
 Said Dame Wiggins of Lee.

While she ran to the field,
 To look for its dam,
 They were warming the bed
 For the poor sick lamb:
 They turned up the clothes
 All as neat as could be;
 "I shall ne'er want a nurse,"
 Said Dame Wiggins of Lee.

She wished them good night,
 And went up to bed:
 When, lo! in the morning,
 The cats were all fled.
 But soon—what a fuss!
 “Where can they all be?
 Here, pussy, puss, puss!”
 Cried Dame Wiggins of Lee.

The Dame was unable
 Her pleasure to smother,
 To see the sick lamb
 Jump up to its mother.
 In spite of the gout,
 And a pain in her knee,
 She went dancing about:
 Did Dame Wiggins of Lee.



The Dame's heart was nigh broke,
 So she sat down to weep,
 When she saw them come back
 Each riding a sheep:
 She fondled and patted
 Each purring tom-my:
 “Ah! welcome, my dears,”
 Said Dame Wiggins of Lee.

The Farmer soon heard
 Where his sheep went astray,
 And arrived at Dame's door
 With his faithful dog Tray.
 He knocked with his crook,
 And the stranger to see,
 Out the window did look
 Dame Wiggins of Lee.

For their kindness he had them
 All drawn' by his team;
 And gave them some field mice,
 And raspberry cream.
 Said he, "All my stock
 You shall presently see;
 For I honor the cats
 Of Dame Wiggins of Lee."

For the care of his lamb,
 And their comical pranks,
 He gave them a ham
 And abundance of thanks.
 "I wish you good-day,
 My fine fellows," said he;
 "My compliments, pray,
 To Dame Wiggins of Lee."

To show them his poultry,
 He turn'd them all loose,
 Then each nimbly leap'd
 On the back of a goose,
 Which frightened them so
 That they ran to the sea,
 And half drown'd the poor cats
 Of Dame Wiggins of Lee.

You see them arrived
 At their Dame's welcome door;
 They show her their presents,
 And all their good store.
 "Now come in to supper,
 And sit down with me;
 All welcome once more,"
 Cried Dame Wiggins of Lee.

FOREIGN CHILDREN

Little Indian, Sioux or Crow,
 Little frosty Eskimo,
 Little Turk or Japanee,
 Oh! don't you wish that you were me?

You have seen the scarlet trees
 And the lions over seas;
 You have eaten ostrich eggs,
 And turned the turtles off their legs.

Such a life is very fine,
 But it's not so nice as mine;
 You must often, as you trod,
 Have wearied not to be abroad.

You have curious things to eat,
 I am fed on proper meat;
 You must dwell beyond the foam,
 But I am safe and live at home.

Little Indian, Sioux or Crow,
 Little frosty Eskimo,
 Little Turk or Japanee,
 Oh! don't you wish that you were me?

—Stevenson.

MY SHADOW

I have a little shadow that goes in and out with me,
And what can be the use of him is more than I can see.
He is very, very like me from the heels up to the head;
And I see him jump before me when I jump into my bed.

The funniest thing about him is the way he likes to grow—
Not at all like proper children, which is always very slow;
For he sometimes shoots up taller like an India-rubber ball,
And he sometimes gets so little that there's none of him at all.

He hasn't got a notion of how children ought to play,
And can only make a fool of me in every sort of way.
He stays so close beside me, he's a coward you can see;
I'd think shame to stick to nursie as that shadow sticks to me!

One morning, very early, before the sun was up,
I rose and found the shining dew on every buttercup;
But my lazy little shadow, like an arrant sleepy-head,
Had stayed at home behind me and was fast asleep in bed.

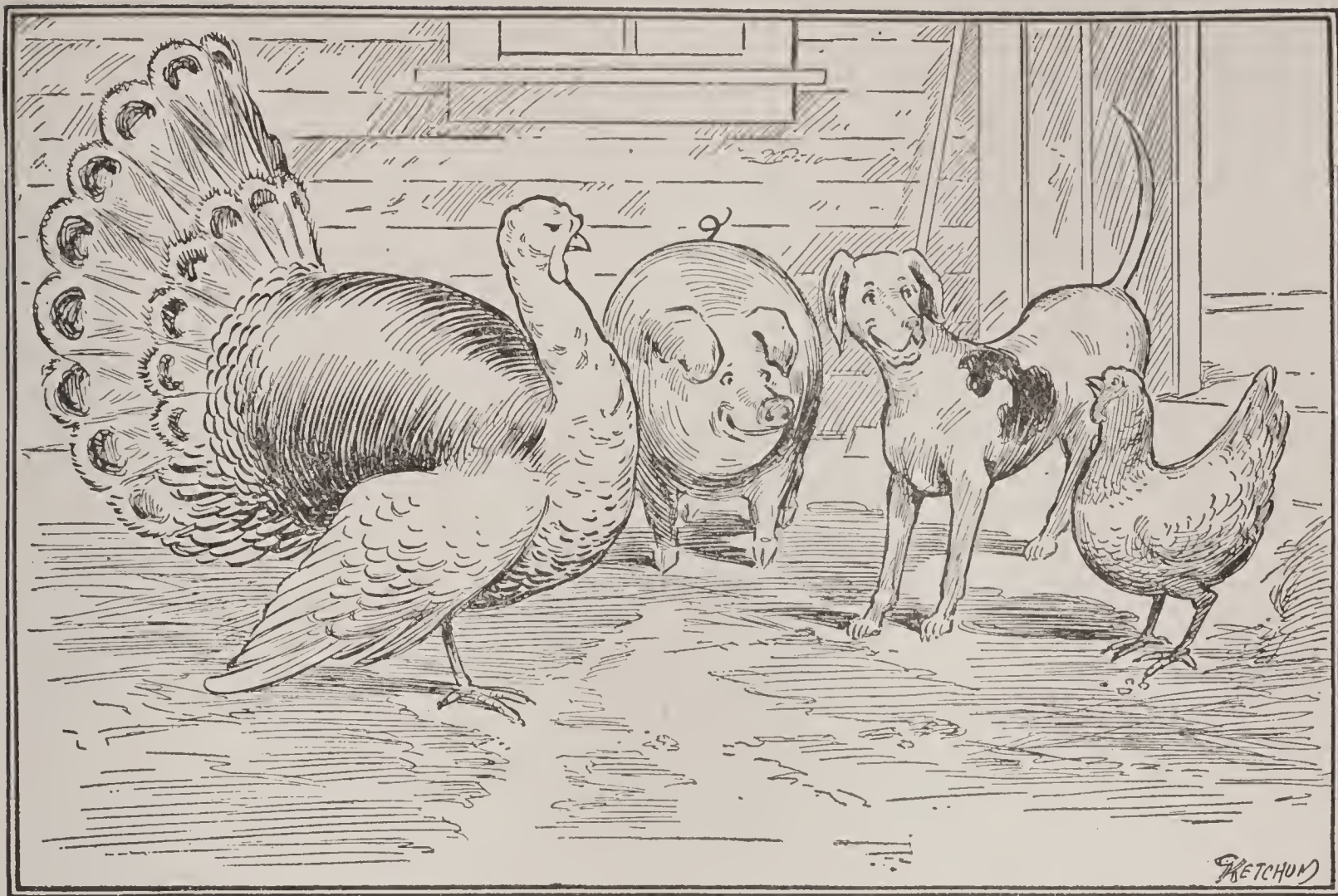
—Stevenson.

Little Boy Blue, come, blow your horn;
The sheep's in the meadow, the cow's in the corn.
"Where's the little boy that looks after the sheep?"
"He's under the haystack, fast asleep."

Little Bo-Peep has lost her sheep,
And can't tell where to find them;
Leave them alone, and they'll come home,
Wagging their tails behind them.

Humpty Dumpty sat on a wall;
Humpty Dumpty had a great fall;
And all the King's horses and all the King's men
Can't put Humpty Dumpty together again.

Hey, diddle, diddle,
The cat and the fiddle,
The cow jumped over the moon;
The little dog laughed
To see the sport
While the dish ran away with the spoon.



“Who will help me plant my wheat?”

THE LITTLE RED HEN

Long ago there lived in a little house on the edge of the woods, Little Red Hen. She had a nice little garden where she planted seeds and raised good things to eat. Little Red Hen had three friends—a dog, a turkey, and a pig.

One day as she was out scratching in the woods she dug up a grain of wheat and thought to herself, I will plant this wheat, and when it is grown I will make some flour to make bread of, so she said to her friends, “Who will help me plant my wheat?”

“I won’t,” said the dog, “bow! wow! I am too busy. I must chase the cat.”

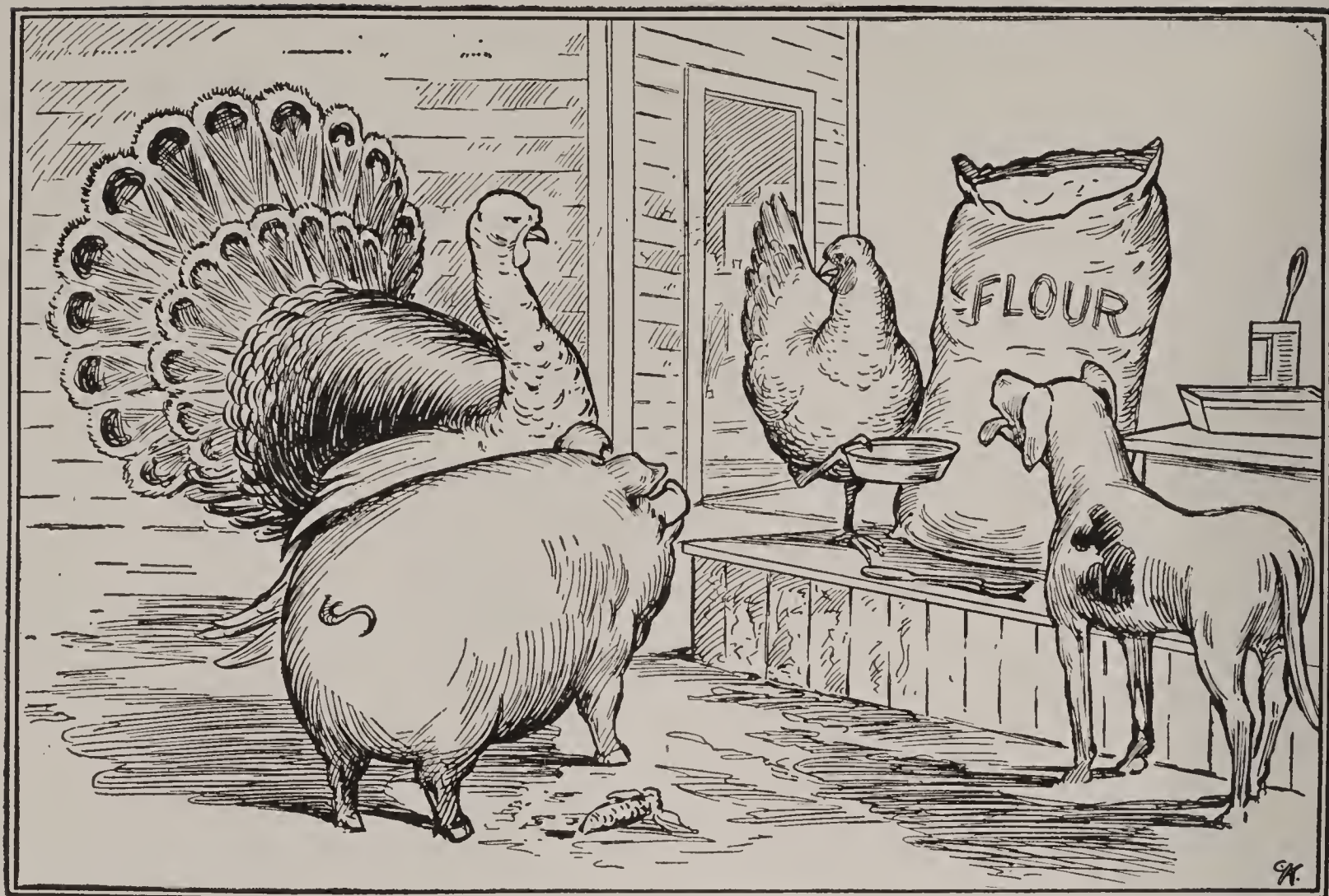
“I won’t,” said the turkey, “gobble! gobble! I must strut.”

“I won’t,” said the pig, “oof! oof! I must roll in the mud.”

So Little Red Hen said, “All right, I will plant it myself.” So she went out and dug up the ground, and made a nice soft place and planted the grain of wheat.

That night it rained and the next day the sun shone, and pretty soon the wheat grew and came up. Little Red Hen watched it carefully, and, by and by, the wheat had grown tall and was ripe and ready to cut. Then she said to her friends, “Who will help me cut my wheat?”

“I won’t,” said the dog, “I must hunt a rabbit.”



"Who will help me make my bread?"

"I won't," said the turkey, "I must hunt a worm for the little turkeys."

"I won't," said the pig, "I must eat my dinner."

"All right," said Little Red Hen, "then I will do it myself." So she took the sickle and cut the wheat, binding it up into bundles, and carried it into the barn.

"Now, who will help me thresh the wheat?" said Little Red Hen.

"I won't," said the dog, "I must go after the cows."

"I won't," said the turkey, "I must go out for a walk."

"I won't," said the pig, "I must root in the ground."

"All right," said Little Red Hen, "then I will do it myself," and she went into the barn and threshed the wheat. She put it in a sack all ready to carry to the mill. "Now," she said to her friends, "who will help me carry the wheat to the mill?"

"I won't," said the dog, "I must go and bury my bone."

"I won't," said the turkey, "I must gobble at the little girl's red dress."

"I won't," said the pig, "I must hunt some acorns."

"All right," said Little Red Hen, "I will carry it to the mill myself." So she lifted the sack of wheat to her shoulder and went to the mill. The miller put the wheat into the hopper. Pretty

soon she had a nice sack of flour. This she took home and was ready to make her bread.

"Now, who will help me make the bread?" said Little Red Hen.

"I won't," said the dog. "I must go with Charlie after the cows."

"I won't," said the turkey, "I must chase grasshoppers."

"I won't," said the pig, "because the farmer has just thrown out some corn."

"All right," said Little Red Hen, "then I will make it myself." So she took some flour, stirred it up, put in some yeast, and set it to rise. By and by she made it into loaves and put it in the oven to bake. After it was all done, nice and brown, she said, "Now, who will help me eat my bread?"

"I will," said the dog.

"I will," said the turkey.

"I will," said the pig.

"Oh no, you won't!" said Little Red Hen. "None of you would help me plant my wheat, or cut it, or thresh it, or take it to the mill, or make my bread; now, none of you will help me eat it. I will eat it all myself."

Little Red Hen did eat her bread herself and she did not give any of it to the dog, the turkey, or the pig.

"Pussy-cat, pussy-cat, where have you been?"

"I've been up to London to look at the Queen."

"Pussy-cat, pussy-cat, what did you there?"

"I frightened a little mouse under the chair."

Little Miss Muffet

Sat on a tuffet

Eating her curds and whey;

Along came a spider,

And sat down beside her,

And frightened Miss Muffet away.

Jack and Jill went up the hill

To fetch a pail of water;

Jack fell down and broke his crown,

And Jill came tumbling after.

Ding, dong, bell, Pussy's in the well!

Who put her in? Little Tommy Green,

Who pulled her out? Big Jack Stout.

THE THREE BEARS

Once upon a time, long ago, there lived in a little house way off in the woods, three bears. There was a big papa bear and a middle sized mamma bear and a little baby bear. They had some nice chairs to sit in, some bowls to eat their soup out of, and soft beds to sleep in.

One day, just as they were getting ready to eat their dinner, and had their soup on the table, they thought they would take a little walk while their soup was getting cool, so they started out into the woods. Just as they had gone, little Silverlocks came along. Little Silverlocks had been out picking flowers and had lost her way and wandered off into the woods until finally she came in sight of the house where the bears lived. She was getting pretty tired because she had walked so far, and thought she would inquire and see if she could find the way home. So she came to the house and knocked on the door, but no one answered. She knocked again but no one answered. Then she looked in the window. Nobody was at home, so she tried the door and found it was unlocked and walked in.

Just inside the door she saw the chairs that the bears sat in. She had been walking so long she was very tired and sat down on the first chair she came to, which was the big papa bear's chair. But the chair was too big for her and too hard, so she tried the next chair which was the mamma bear's chair. That, also, was too big and too hard so she tried the little baby bear's chair which was just the right size, and just as comfortable as could be, and she rocked and rocked and rocked until all at once the chair broke clear down on the floor.

She was just a little shaken up and was a little frightened when she got up but she happened to notice the bowls of soup on the table and she was so hungry she forgot about her fall and went over to the table to get something to eat. She took the big spoon and tasted of the soup in the big bowl, but it was *so* salty she did not like it *at all*. Then she took a spoonful out of the middle sized bowl. That was better but it was too salty too. Then she took a spoonful out of the little bowl and that was just the way she liked it and she ate and ate until the first thing she knew the soup was all gone.

After she had eaten the soup she began to feel better and thought she would look around and see if there was a place to sleep, so she went upstairs into the big bear's bedroom. Just inside the door was a great big bed and she was so tired she jumped right in. The bed was so hard she did not like it at all, so she got out of the big bed and into the next bed, which was the middle sized bed, but that was not comfortable either, so she thought

she would try the little bed. She got in, pulled the quilts up around her, and it was so nice and soft that the first thing she knew she was fast asleep.

While little Silverlocks was asleep the bears came back from their walk and, as they looked around, the papa bear said in his great big voice: "Who has been sitting in my chair?" And the mamma bear looked at her chair and said in a middle sized voice: "Who has been sitting in my chair?" And the little baby bear looked at his chair and said in a little voice: "Who has been sitting in my chair and broke it all down on the floor?"

Then the bears went over to the table to eat their soup and papa bear looked at this spoon and said in his great big voice: "Who has been tasting of my soup?" And mamma bear looked at her spoon and said in a middle sized voice: "Who has been tasting of my soup?" And baby bear looked at his bowl and said in a little voice: "Who has been tasting of my soup and ate it all up?"

Then the mamma bear got the baby bear some more soup.

After they had their dinner they went upstairs to bed. As they looked at the beds the papa bear said in his great big voice: "Who has been sleeping in my bed?" And mamma bear said in her middle sized voice: "Who has been sleeping in my bed?" Baby bear looked at his bed and said in his little voice: "Who has been sleeping in my bed and is here fast asleep?" And just as baby bear said that, little Silverlocks woke, jumped up quick, and ran downstairs and ran home.

Sing a song of sixpence,
A pocket full of rye,
Four and twenty blackbirds
Baked in a pie.

When the pie was opened,
The birds began to sing;
Wasn't that a dainty dish
To set before the King?

The King was in the parlor
Counting out his money;
The Queen was in the kitchen,
Eating bread and honey;

The maid was in the garden,
Hanging out the clothes;
Down came a blackbird,
And nipped off her nose.

FAIRY STORIES AND FABLES.

THE LAST DREAM OF THE OLD OAK.

In the forest, high up on the steep shore, and not far from the open sea-coast, stood a very old oak-tree. It was just three hundred and sixty-five years old, but that long time was to the tree as the same number of days might be to us; we wake by day and sleep by night, and then we have our dreams. It is different with the tree; it is obliged to keep awake through three seasons of the year, and does not get any sleep till winter comes. Winter is its time for rest; its night after the long day of spring, summer, and autumn.

On many a warm summer, the Ephemera, the flies that exist for only a day, had fluttered about the old oak, enjoyed life and felt happy; and if, for a moment one of the tiny creatures rested on one of his large, fresh leaves, the tree would always say, "Poor little creature! your whole life consists only of a single day. How very short. It must be quite melancholy."

"Melancholy! what do you mean?" the little creature would always reply. "Everything around me is so wonderfully bright and warm and beautiful, that it makes me joyous."

"But only for one day, and then it is all over."

"Over!" repeated the fly; "what is the meaning of all over? Are you all over too?"

"No; I shall very likely live for thousands of your days, and my day is whole seasons long; indeed it is so long that you could never reckon it out."

"No? then I don't understand you. You may have thousands of my days, but I have thousands of moments in which I can be merry and happy. Does all the beauty of the world cease when you die?"

"No," replied the tree; "it will certainly last much longer,—infinitely longer than I can think of."

"Well, then," said the little fly, "we have the same time to live, only we reckon differently." And the little creature danced and floated in the air, rejoicing in her delicate wings of gauze and velvet, rejoicing in the balmy breezes, laden with the fragrance of clover-fields and wild roses, elder-blossoms and honeysuckle, from the garden hedges, wild thyme, primroses, and mint, and the scent of all these was so strong that the perfume almost intoxicated the little fly. The long and beautiful day had been so full of joy and sweet delights, that, when the sun sank low, it felt tired of all its happiness and enjoyment. Its wings could sustain it no longer, and gently and slowly it glided down upon the soft, waving blades of grass, nodded its little head as well as it could nod, and slept peacefully and sweetly. The fly was dead.

"Poor little Ephemera!" said the oak; "what a short life!" And so, on every summer day the dance was repeated, the same questions asked, and the same answers given, the same peaceful falling asleep. The same thing was continued through many generations of Ephemera; all of them felt equally merry and equally happy.

The oak remained awake through the morning of spring, the noon of summer, and the evening of autumn; its time of rest, its night, drew nigh—winter was coming. Already the storms were singing, "Good-night, good-night." Here fell a leaf and there fell a leaf. "We will rock you and lull you. Go to sleep, go to sleep. We will sing you to sleep, and shake you to sleep, and it will do your old twigs good; they will even crackle with pleasure. Sleep sweetly, sleep sweetly, it is your three-hundred-and-sixty-fifth night. Correctly speaking, you are but a youngster in the world. Sleep sweetly; the clouds will drop snow upon you, which will be quite a coverlid, warm and sheltering to your feet. Sweet sleep to you, and pleasant dreams."

And there stood the oak, stripped of all its leaves, left to rest during the whole

of a long winter, and to dream many dreams of events that had happened in its life, as in the dreams of men.

The great tree had once been small; indeed, in its cradle it had been an acorn. According to human computation, it was now in the fourth century of its existence. It was the largest and best tree in the forest. Its summit towered above all the other trees, and could be seen far out at sea, so that it served as a landmark to the sailors. It had no idea how many eyes looked eagerly for it. In its topmost branches the wood-pigeon built her nest, and the cuckoo carried out his usual vocal performances, and his well-known notes echoed amid the boughs; and in autumn, when the leaves looked like beaten copper plates, the birds of passage would come and rest upon the branches before taking their flight across the sea.

But now it was winter, the tree stood leafless, so that every one could see how crooked and bent were the branches that sprang forth from the trunk. Crows and rooks came by turns and sat on them, and talked of the hard times which were beginning, and how difficult it was in winter to obtain food.

It was just about holy Christmas time that the tree dreamed a dream. The tree had, doubtless, a kind of feeling that the festive time had arrived, and in his dream fancied he heard the bells ringing from all the churches round, and yet it seemed to him to be a beautiful summer's day, mild and warm. His mighty summit was crowned with spreading fresh green foliage; the sunbeams played among the leaves and branches, and the air was full of fragrance from herb and blossom; painted butterflies chased each other; the summer flies danced around him, as if the world had been created merely for them to dance and be merry in. All that had happened to the tree during every year of his life seemed to pass before him as if in a festive procession.

He saw the knights of olden times and noble ladies ride by through the wood on their gallant steeds, with plumes waving in their hats, and falcons on their wrists. The hunting-horn sounded, and the dogs barked, and he saw hostile warriors, in colored dresses and glittering armor, with spear and halberd, pitching their tents, and anon striking them. The watchfires again blazed, and men sang and slept under the hospitable shelter of the tree. He saw lovers meet in quiet happiness near him in the moonshine, and carve the initials of their names in the grayish-green bark on his trunk.

Once, but long years had intervened since then, guitars and Æolian harps had been hung on his boughs by merry travellers; now they seemed to hang there again, and he could hear their marvellous tones. The wood-pigeons cooed as if to explain the feelings of the tree, and the cuckoo called out to tell him how many summer days he had yet to live.

Then it seemed as if new life was thrilling through every fibre of root and stem and leaf, rising even to the highest branches. The tree felt itself stretching and spreading out, while through the root beneath the earth ran the warm vigor of life. As he grew higher and still higher, with increased strength, his topmost boughs became broader and fuller; and in proportion to his growth, so was his self-satisfaction increased, and with it arose a joyous longing to grow higher and higher, to reach even to the warm, bright sun itself.

Already had his topmost branches pierced the clouds, which floated beneath them like troops of birds of passage, or large white swans; every leaf seemed gifted with sight, as if it possessed eyes to see. The stars became visible in broad daylight, large and sparkling, like clear and gentle eyes. They recalled to the memory the well-known look in the eyes of a child, or in the eyes of lovers who had once met beneath the branches of the old oak.

These were wonderful and happy moments for the old tree, full of peace and joy; and yet amidst all this happiness, the tree felt a yearning, longing desire that all the other trees, bushes, herbs, and flowers beneath him, might be able also to rise

higher, as he had done, and to see all this splendor, and experience the same happiness. The grand, majestic oak could not be quite happy in the midst of his enjoyment, while all the rest, both great and small, were not with him. And this feeling of yearning trembled through every branch, through every leaf, as warmly and fervently as if they had been the fibres of a human heart.

The summit of the tree waved to and fro and bent downwards as if in his silent longing he sought for something. Then there came to him the fragrance of thyme, followed by the more powerful scent of honeysuckle and violets; and he fancied he heard the note of the cuckoo.

At length his longing was satisfied. Up through the clouds came the green summits of the forest trees, and beneath him, the oak saw them rising, and growing higher and higher. Bush and herb shot upward and some even tore themselves up by the roots to rise more quickly. The quickest of all was the birch-tree. Like a lightning flash the slender stem shot upwards in a zigzag line, the branches spreading around it like green gauze and banners. Every native of the wood, even to the brown and feathery rushes, grew with the rest, while the birds ascended with the melody of song. On a blade of grass, that fluttered in the air like a long, green ribbon, sat a grasshopper, cleaning his wings with his legs. May beetles hummed, bees murmured, birds sang, each in its own way; the air was filled with the sounds of song and gladness.

"But where is the little blue flower that grows by the water?" asked the oak, "and the purple bell-flower, and the daisy? I want them all."

"Here we are, here we are," sounded in voice and song.

"But the beautiful thyme of last summer, where is that? and the lilies-of-the-valley, which last year covered the earth with their bloom? and the wild apple-tree with its lovely blossoms, and all the glory of the wood, which has flourished year after year? even what may have but now sprouted forth could be with us here."

"We are here, we are here," sounded voices higher in the air, as if they had flown there beforehand.

"Why, this is beautiful, too beautiful to be believed," cried the oak in a joyful tone. "I have them all here, both great and small; not one has been forgotten. Can such happiness be imagined?" It seemed almost impossible.

"In heaven with the Eternal God, it can be imagined, for all things are possible," sounded the reply through the air.

And the old tree, as it still grew upwards and onwards, felt that his roots were loosening themselves from the earth.

"It is right so, it is best," said the tree, "no fetters hold me now. I can fly up to the very highest point in light and glory. And all I love are with me, both small and great. All—all are here."

Such was the dream of the old oak: and while he dreamed, a mighty storm came rushing over land and sea, at the holy Christmas time. The sea rolled in great billows towards the shore.

There was a cracking and crushing heard in the tree. The root was torn from the ground just at the moment when in his dream he fancied it was being loosened from the earth. He fell—his three hundred and sixty-five years were passed as the single day of the Ephemera.

On the morning of Christmas-day, when the sun rose, the storm had ceased. From all the churches sounded the festive bells, and from every hearth, even of the smallest hut, rose the smoke into the blue sky, like the smoke from the festive thank-offerings on the Druids' altars. The sea gradually became calm, and on board a great ship that had withstood the tempest during the night, all the flags were displayed, as a token of joy and festivity.

"The tree is down! The old oak,—our landmark on the coast!" exclaimed the

sailors. "It must have fallen in the storm of last night. Who can replace it? Alas! no one." This was a funeral oration over the old tree; short but well-meant.

There it lay stretched on the snow-covered shore, and over it sounded the notes of a song from the ship—a song of Christmas joy, of the redemption of the soul of man, and of eternal life through Christ.

"Sing aloud on this happy morn,
All is fulfilled, for Christ is born;
With songs of joy let us loudly sing,
'Hallelujahs to Christ our King.'"

Thus sounded the Christmas carol, and every one on board the ship felt his thoughts elevated, through the song and the prayer, even as the old tree had felt lifted up in its last, its beautiful dream on that Christmas morn.

—Hans Anderson.

WHAT THE GOODMAN DOES IS ALWAYS RIGHT

I will tell you a story that was told to me when I was a little boy. Every time I think of this story, it seems to me more and more charming; for it is with stories as it is with many people—they become better as they grow older.

I have no doubt that you have been in the country,* and seen a very old farmhouse, with thatched roof, and mosses and small plants growing wild upon it. There is a stork's nest on the ridge of the gable, for we cannot do without the stork. The walls of the house are sloping, and the windows are low, and only one of the latter is made to open. The baking-oven sticks out of the wall like a great knob. An elder-tree hangs over the palings; and beneath its branches, at the foot of the paling, is a pool of water, in which a few ducks are disporting themselves. There is a yard-dog, too, who barks at all comers.

Just such a farmhouse as this stood in a country lane; and in it dwelt an old couple, a peasant and his wife. Small as their possessions were, they had one article they could not do without, and that was a horse, which contrived to live upon the grass which it found by the side of the high-road. The old peasant rode into the town upon this horse, and his neighbors often borrowed it of him, and paid for the loan of it by rendering some service to the old couple. After a time they thought it would be as well to sell the horse, or exchange it for something which might be more useful to them. But what might this *something* be?

"You'll know best, old man," said the wife. "It is fair-day to-day; so ride into town, and get rid of the horse for money, or make a good exchange; whichever you do will be right to me, so ride to the fair."

And she fastened his neckerchief for him; for she could do that better than he could, and she could also tie it very prettily in a double bow. She also smoothed his hat round and round with the palm of her hand, and gave him a kiss. Then he rode away upon the horse that was to be sold or bartered for something else. Yes, the good man knew what he was about. The sun shone with great heat, and not a cloud was to be seen in the sky. The road was very dusty; for a number of people, all going to the fair, were driving, riding, or walking upon it. There was no shelter anywhere from the hot sunshine. Among the rest, a man came trudging along, and driving a cow to the fair. The cow was as beautiful a creature as any cow could be.

"She gives good milk, I am certain," said the peasant to himself. "That would be a very good exchange: the cow for the horse. Hallo there! you with the cow," he said. "I tell you what; I dare say a horse is of more value than a cow; but I don't care for that,—a cow will be more useful to me; so, if you like, we'll exchange."

"To be sure I will," said the man.

Accordingly the exchange was made; and as the matter was settled, the peasant

*In the country here means in Denmark.

might have turned back; for he had done the business he came to do. But having made up his mind to go to the fair, he determined to do so, if only to have a look at it; so on he went to the town with his cow. Leading the animal, he strode on sturdily, and, after a short time, overtook a man who was driving a sheep. It was a good fat sheep, with a fine fleece on its back.

"I should like to have that fellow," said the peasant to himself. "There is plenty of grass for him by our palings, and in the winter we could keep him in the room with us. Perhaps it would be more profitable to have a sheep than a cow. Shall I exchange?"

The man with the sheep was quite ready, and the bargain was quickly made. And then our peasant continued his way on the high-road with his sheep. Soon after this, he overtook another man, who had come into the road from a field, and was carrying a large goose under his arm.

"What a heavy creature you have there!" said the peasant; "it has plenty of feathers and plenty of fat, and would look well tied to a string, or paddling in the water at our place. That would be very useful to my old woman; she could make all sorts of profit out of it. How often she has said, 'If now we only had a goose!' Now here is an opportunity, and, if possible, I will get it for her. Shall we exchange? I will give you my sheep for your goose, and thanks into the bargain."

The other had not the least objection, and accordingly the exchange was made, and our peasant became possessor of the goose. By this time he had arrived very near the town. The crowd on the high-road had been gradually increasing, and there was quite a rush of men and cattle. The cattle walked on the path and by the palings, and at the turnpike gate they even walked into the toll-keeper's potato-field, where one fowl was strutting about, with a string tied to its leg, for fear it should take fright at the crowd, and run away and get lost. The tail-feathers of this fowl were very short, and it winked with both its eyes, and looked very cunning, as it said, "Cluck, cluck." What were the thoughts of the fowl as it said this I cannot tell you; but directly our good man saw it, he thought, "Why, that's the finest fowl I ever saw in my life; its finer than our parson's brood hen, upon my word. I should like to have that fowl. Fowls can always pick up a few grains that lie about, and almost keep themselves. I think it would be a good exchange if I could get it for my goose. Shall we exchange?" he asked the toll-keeper.

"Exchange?" repeated the man; "well, it would not be a bad thing."

And so they made an exchange; the toll-keeper at the turnpike gate kept the goose, and the peasant carried off the fowl. Now he really had done a great deal of business on his way to the fair, and he was hot and tired. He wanted something to eat, and a glass of ale to refresh himself; so he turned his steps to an inn. He was just about to enter, when the ostler came out, and they met at the door. The ostler was carrying a sack. "What have you in that sack?" asked the peasant.

"Rotten apples," answered the ostler; "a whole sackful of them. They will do to feed the pigs with."

"Why, that will be terrible waste," he replied; "I should like to take them home to my old woman. Last year the old apple-tree by the grass-plot only bore one apple, and we kept it in the cupboard till it was quite withered and rotten. It was always property, my old woman said; and here she would see a great deal of property—a whole sackful; I should like to show them to her."

"What will you give me for the sackful?" asked the ostler.

"What will I give? Well, I will give you my fowl in exchange."

So he gave up the fowl, and received the apples, which he carried into the inn parlor. He leaned the sack carefully against the stove, and then went to the table. But the stove was hot, and he had not thought of that. Many guests were present, —horses-dealers, cattle-drovers, and two Englishmen. The Englishmen were so rich that their pockets quite bulged out, and seemed ready to burst; and they could

bet, too, as you shall hear. "Hiss—s—s, hiss—s—s." What could that be by the stove? The apples were beginning to roast. "What is that?" asked one.

"Why, do you know"—said our peasant. And then he told them the whole story of the horse, which he had exchanged for a cow, and all the rest of it, down to the apples.

"Well, your old woman will give it you well when you get home," said one of the Englishmen. "Won't there be a noise?"

"What! Give me what?" said the peasant. "Why, she will kiss me, and say, 'what the goodman does is always right.'"

"Let us lay a wager on it," said the Englishman. "We'll wager you a ton of coined gold, a hundred pounds to the hundredweight."

"No; a bushel will be enough," replied the peasant. "I can only set a bushel of apples against it, and I'll throw myself and my old woman into the bargain; that will pile up the measure, I fancy."

"Done! taken!" and so the bet was made.

Then the landlord's coach came to the door, and the two Englishmen and the peasant got in, and away they drove, and soon arrived and stopped at the peasant's hut. "Good evening, old woman." "Good evening, old man." "I've made the exchange."

"Ah, well, you understand what you're about," said the woman. Then she embraced him, and paid no attention to the strangers, nor did she notice the sack.

"I got a cow in exchange for the horse."

"O, how delightful!" said she. "Now we shall have plenty of milk, and butter, and cheese, on the table. That was a capital exchange."

"Yes, but I changed the cow for a sheep."

"Ah, better still!" cried the wife. "You always think of everything; we have just enough pasture for a sheep. Ewe's milk and cheese, woollen jackets and stockings! The cow could not give all these, and her hairs only fall off. How you think of everything!"

"But I changed away the sheep for a goose."

"Then we shall have roast goose to eat this year. You dear old man, you are always thinking of something to please me. This is delightful. We can let the goose walk about with a string tied to her leg, so she will be fatter still before we roast her."

"But I gave away the goose for a fowl."

"A fowl! Well, that was a good exchange," replied the woman. "The fowl will lay eggs and hatch them, and we shall have chickens; we shall soon have a poultry-yard. Oh, this is just what I was wishing for."

"Yes; but I exchanged the fowl for a sack of shrivelled apples."

"What! I must really give you a kiss for that!" exclaimed the wife. "My dear, good husband, now I'll tell you something. Do you know, almost as soon as you left me this morning, I began thinking of what I could give you nice for supper this evening, and then I thought of fried eggs and bacon, with sweet herbs; I had eggs and bacon, but I wanted the herbs; and went over to the schoolmaster's: I knew they had plenty of herbs, but the schoolmistress is very mean, although she can smile so sweetly. I begged her to lend me a handful of herbs. 'Lend!' she exclaimed, 'I have nothing to lend; I could not even lend you a shrivelled apple, my dear woman.' But now I can lend her ten, or a whole sackful, which I'm very glad of; it makes me laugh to think about it;" and then she gave him a hearty kiss.

"Well, I like all this," said both the Englishmen; "always going down the hill, and yet always merry; it's worth the money to see it." So they paid a hundredweight of gold to the peasant, who, whatever he did, was not scolded, but kissed.

Yes, it always pays best when the wife sees and maintains that her husband knows best, and that whatever he does is right.

This is a story which I heard when I was a child; and now you have heard it, too, and know that "What the goodman does is always right." —*Hans Anderson.*

THE SLEEPING BEAUTY.

In times past there lived a king and queen, who said to each other every day of their lives, "Would that we had a child!" and yet they had none. But it happened once that when the queen was bathing, there came a frog out of the water, and he squatted on the ground, and said to her,

"Thy wish shall be fulfilled; before a year has gone by, thou shalt bring a daughter into the world."

And as the frog foretold, so it happened; and the queen bore a daughter so beautiful that the king could not contain himself for joy, and he ordained a great feast. Not only did he bid to it his relations, friends, and acquaintances, but also the wise women, that they might be kind and favourable to the child. There were thirteen of them in his kingdom, but as he had only provided twelve golden plates for them to eat from, one of them had to be left out. However, the feast was celebrated with all splendour; and as it drew to an end, the wise women stood forward to present to the child their wonderful gifts: one bestowed virtue, one beauty, a third riches, and so on, whatever there is in the world to wish for. And when eleven of them had said their say, in came the uninvited thirteenth, burning to revenge herself, and without greeting or respect, she cried with a loud voice,

"In the fifteenth year of her age the princess shall prick herself with a spindle and shall fall down dead."

And without speaking one more word she turned away and left the hall. Every one was terrified at her saying, when the twelfth came forward, for she had not yet bestowed her gift, and though she could not do away with the evil prophecy, yet she could soften it, so she said,

"The princess shall not die, but fall into a deep sleep for a hundred years."

Now the king, being desirous of saving his child even from this misfortune, gave commandment that all the spindles in his kingdom should be burnt up.

The maiden grew up, adorned with all the gifts of the wise women; and she was so lovely, modest, sweet, and kind and clever, that no one who saw her could help loving her.

It happened one day, she being already fifteen years old, that the king and queen rode abroad, and the maiden was left behind alone in the castle. She wandered about into all the nooks and corners, and into all the chambers and parlours, as the fancy took her, till at last she came to an old tower. She climbed the narrow winding stair which led to a little door, with a rusty key sticking out of the lock; she turned the key, and the door opened, and there in the little room sat an old woman with a spindle, diligently spinning her flax.

"Good day, mother," said the princess, "what are you doing?"

"I am spinning," answered the old woman, nodding her head.

"What thing is that that twists round so briskly?" asked the maiden, and taking the spindle into her hand she began to spin; but no sooner had she touched it than the evil prophecy was fulfilled, and she pricked her finger with it. In that very moment she fell back upon the bed that stood there, and lay in a deep sleep. And this sleep fell upon the whole castle; the king and queen, who had returned and were in the great hall fell fast asleep, and with them the whole court. The horses in their stalls, the dogs in the yard, the pigeons on the roof, the flies on the wall, the very fire that flickered on the hearth, became still, and slept like the rest; and the meat on the spit ceased roasting, and the cook, who was going to pull the scullion's hair for some mistake he had made, let him go, and went to sleep. And the wind ceased, and not a leaf fell from the trees about the castle.

Then round about that place there grew a hedge of thorns thicker every year, until at last the whole castle was hidden from view, and nothing of it could be seen but the vane on the roof. And a rumour went abroad in all that country of the

beautiful sleeping Rosamond, for so was the princess called; and from time to time many kings' sons came and tried to force their way through the hedge; but it was impossible for them to do so, for the thorns held fast together like strong hands, and the young men were caught by them, and not being able to get free, there died a lamentable death.

Many a long year afterwards there came a king's son into that country, and heard an old man tell how there should be a castle standing behind the hedge of thorns, and that there a beautiful enchanted princess named Rosamond had slept for a hundred years, and with her the king and queen, and the whole court. The old man had been told by his grandfather that many king's sons had sought to pass the thorn-hedge, but had been caught and pierced by the thorns, and had died a miserable death. Then said the young man, "Nevertheless, I do not fear to try; I shall win through and see the lovely Rosamond." The good old man tried to dissuade him, but he would not listen to his words.

For now the hundred years were at an end, and the day had come when Rosamond should be awakened. When the prince drew near the hedge of thorns, it was changed into a hedge of beautiful large flowers, which parted and bent aside to let him pass, and then closed behind him in a thick hedge. When he reached the castle-yard, he saw the horses and brindled hunting-dogs lying asleep, and on the roof the pigeons were sitting with their heads under their wings. And when he came indoors, the flies on the wall were asleep, the cook in the kitchen had his hand uplifted to strike the scullion, and the kitchen-maid had the black fowl on her lap ready to pluck. Then he mounted higher, and saw in the hall the whole court lying asleep, and above them, on their thrones, slept the king and the queen. And still he went farther, and all was so quiet that he could hear his own breathing; and at last he came to the tower, and went up the winding stair, and opened the door of the little room where Rosamond lay. And when he saw her looking so lovely in her sleep, he could not turn away his eyes; and presently he stooped and kissed her, and she awakened, and opened her eyes, and looked very kindly on him. And she rose, and they went forth together, and the king and the queen and whole court waked up, and gazed on each other with great eyes of wonderment. And the horses in the yard got up and shook themselves, the hounds sprang up and wagged their tails, the pigeons on the roof drew their heads from under their wings, looked round, and flew into the field, the flies on the wall crept on a little farther, the kitchen fire leapt up and blazed, and cooked the meat, the joint on the spit began to roast, the cook gave the scullion such a box on the ear that he roared out, and the maid went on plucking the fowl.

Then the wedding of the Prince and Rosamond was held with all splendour, and they lived very happily together until their lives' end.

—*Grimm's Fairy Tales.*

HANS IN LUCK.

Hans had served his master seven years, and at the end of the seventh year he said,

"Master, my time is up; I want to go home and see my mother, so give me my wages."

"You have served me truly and faithfully," said the master; "as the service is, so must the wages be," and he gave him a lump of gold as big as his head. Hans pulled his handkerchief out of his pocket and tied up the lump of gold in it, hoisted it on his shoulder, and set off on his way home. And as he was trudging along, there came in sight a man riding on a spirited horse, and looking very gay and lively. "Oh!" cried Hans aloud, "how splendid riding must be! sitting as much at one's ease as in

an arm-chair, stumbling over no stones, saving one's shoes and getting on one hardly knows how!"

The horseman heard Hans say this, and called out to him,

"Well Hans, what are you doing on foot?"

"I can't help myself," said Hans, "I have this great lump to carry; to be sure, it is gold, but then I can't hold my head straight for it, and it hurts my shoulder."

"I'll tell you what," said the horseman, "we will change; I will give you my horse, and you shall give me your lump of gold."

"With all my heart," said Hans; "but I warn you, you will find it heavy." And the horseman got down, took the gold, and, helping Hans up, he gave the reins into his hand.

"When you want to go fast," said he, "you must click your tongue and cry 'Gee-up!' "

And Hans, as he sat upon his horse, was glad at heart and rode off with merry cheer. After a while he thought he should like to go quicker, so he began to click with his tongue and to cry "Gee-up!" And the horse began to trot, and Hans was thrown before he knew what was going to happen, and there he lay in the ditch by the side of the road. The horse would have got away but that he was caught by a peasant who was passing that way and driving a cow before him. And Hans pulled himself together and got upon his feet, feeling very vexed. "Poor work, riding," said he, "especially on a jade like this, who starts off and throws you before you know where you are, going near to break your neck; never shall I try that game again; now, your cow is something worth having, one can jog on comfortably after her and have her milk, butter, and cheese every day, into the bargain. What would I not give to have such a cow!"

"Well now," said the peasant, "since it will be doing you such a favour, I don't mind exchanging my cow for your horse."

Hans agreed most joyfully, and the peasant, swinging himself into the saddle, was soon out of sight.

And Hans went along driving his cow quietly before him, and thinking all the while of the fine bargain he had made.

"With only a piece of bread I shall have everything I can possibly want, for I shall always be able to have butter and cheese to it, and if I am thirsty I have nothing to do but to milk my cow; and what more is there for heart to wish!"

And when he came to an inn he made a halt, and in the joy of his heart ate up all the food he had brought with him, dinner and supper and all, and bought half a glass of beer with his last two farthings. Then on he went again driving his cow, until he should come to the village where his mother lived. It was now near the middle of the day, and the sun grew hotter and hotter, and Hans found himself on a heath which it would be an hour's journey to cross. And he began to feel very hot, and so thirsty that his tongue clove to the roof of his mouth.

"Never mind," said Hans; "I can find a remedy. I will milk my cow at once." And tying her to a dry tree, and taking off his leather cap to serve for a pail, he began to milk, but not a drop came. And as he set to work rather awkwardly, the impatient beast gave him such a kick on the head with her hind foot that he fell to the ground, and for some time could not think where he was; when luckily there came by a butcher who was wheeling along a young pig in a wheelbarrow.

"Here's a fine piece of work!" cried he, helping poor Hans on his legs again. Then Hans related to him all that had happened; and the butcher handed him his pocket-flask, saying,

"Here, take a drink, and be a man again; of course the cow would give no milk; she is old and only fit to draw burdens, or to be slaughtered."

"Well, to be sure," said Hans, scratching his head. "Who would have thought it? of course it is a very handy way of getting meat when a man has a beast of his

own to kill; but for my part I do not care much about cow beef, it is rather tasteless. Now, if I had but a young pig, that is much better meat, and then the sausages!"

"Look here, Hans," said the butcher, "just for love of you I will exchange, and will give you my pig instead of your cow."

"Heaven reward such kindness!" cried Hans, and handing over the cow, received in exchange the pig, who was turned out of his wheelbarrow and was to be led by a string.

So on went Hans, thinking how everything turned out according to his wishes, and how, if trouble overtook him, all was sure to be set right directly. After a while he fell in with a peasant, who was carrying a fine white goose under his arm. They bid each other good-day, and Hans began to tell about his luck, and how he had made so many good exchanges. And the peasant told how he was taking the goose to a christening feast.

"Just feel how heavy it is," said he, taking it up by the wings; "it has been fattening for the last eight weeks; and when it is roasted, won't the fat run down!"

"Yes, indeed," said Hans, weighing it in his hand, "very fine to be sure; but my pig is not to be despised."

Upon which the peasant glanced cautiously on all sides, and shook his head.

"I am afraid," said he, "that there is something not quite right about your pig. In the village I have just left one had actually been stolen from the bailiff's yard. I fear, I fear you have it in your hand; they have sent after the thief, and it would be a bad look-out for you if it was found upon you; the least that could happen would be to be thrown into a dark hole."

Poor Hans grew pale with fright. "For heaven's sake," said he, "help me out of this scrape, I am a stranger in these parts; take my pig and give me your goose."

"It will be running some risk," answered the man, "but I will do it sooner than that you should come to grief." And so, taking the cord in his hand, he drove the pig quickly along a by-path, and lucky Hans went on his way home with the goose under his arm. "The more I think of it," said he to himself, "the better the bargain seems; first I get the roast goose; then the fat; that will last a whole year for bread and dripping; and lastly the beautiful white feathers which I can stuff my pillow with; how comfortably I shall sleep upon it, and how pleased my mother will be!"

And when he reached the last village, he saw a knife-grinder with his barrow; and his wheel went whirring round, and he sang,

"My scissors I grind, and my wheel I turn;
And all good fellows my trade should learn,
For all that I meet with just serves my turn."

And Hans stood and looked at him; and at last he spoke to him and said, "You seem very well off, and merry with your grinding."

"Yes," answered the knife-grinder, "my handiwork pays very well. I call a man a good grinder who, every time he puts his hand in his pocket finds money there. But where did you buy that fine goose?"

"I did not buy it, but I exchanged it for my pig," said Hans.

"And the pig?"

"That I exchanged for a cow."

"And the cow?"

"That I exchanged for a horse."

"And the horse?"

"I gave for the horse a lump of gold as big as my head."

"And the gold?"

"Oh, that was my wage for seven years' service."

"You seem to have fended for yourself very well," said the knife-grinder. "Now, if you could but manage to have money in your pocket every time you put your hand in, your fortune is made."

"How shall I manage that?" said Hans.

"You must be a knife-grinder like me," said the man. "All you want is a grindstone, the rest comes of itself: I have one here; to be sure it is a little damaged, but I don't mind letting you have it in exchange for your goose; what say you?"

"How can you ask?" answered Hans. "I shall be the luckiest fellow in the world, for if I find money whenever I put my hand in my pocket, there is nothing more left to want."

And so he handed over the goose to the peddler and received the grindstone in exchange.

"Now," said the knife-grinder, taking up a heavy common stone that lay near him, "here is another proper sort of stone that will stand a good deal of wear and that you can hammer out your old nails upon. Take it with you, and carry it carefully."

Hans lifted up the stone and carried it off with a contented mind. "I must have been born under a lucky star!" cried he, while his eyes sparkled for joy. "I have only to wish for a thing and it is mine."

After a while he began to feel rather tired, as indeed he had been on his legs since daybreak; he also began to feel rather hungry, as in the fullness of his joy at getting the cow, he had eaten up all he had. At last he could scarcely go on at all, and had to make a halt every moment, for the stones weighed him down most unmercifully, and he could not help wishing that he did not feel obliged to drag them along. And on he went at a snail's pace until he came to a well; then he thought he would rest and take a drink of the fresh water. And he placed the stones carefully by his side at the edge of the well; then he sat down, and as he stooped to drink, he happened to give the stones a little push, and they both fell into the water with a splash. And then Hans, having watched them disappear, jumped for joy, and thanked his stars that he had been so lucky as to get rid of the stones that had weighed upon him so long without any effort of his own.

"I really think," cried he, "I am the luckiest man under the sun." So on he went, void of care, until he reached his mother's house.

—*Grimm's Fairy Tales.*

THE FOX AND THE GRAPES

One very warm day a fox came by a vineyard where some grapes were hanging, luscious and ripe.

"Now," said the fox, "I will have some nice sweet grapes to eat."

The vines, however, were run upon high trellises, so the fox was obliged to jump for the grapes. He found that they were just a little beyond his reach but he jumped and jumped until finally he was obliged to give up and sit down, tired out. He looked at the beautiful ripe grapes and licking his chops, said:

"Well what is the difference, anyway? I am sure those grapes are sour."

THE BUNDLE OF STICKS

A certain man had seven sons. Instead of living together pleasantly and in peace as a good family should they were always quarreling. The father tried his best to cure them of this habit but they continued to quarrel every time they were together.

One day he thought he would give them a lesson to remember, so he called his

sons to him. He had a bundle of seven sticks tied together. This he handed to the boys and asked them to try to break it. Each of them took the bundle and, trying their best, were unable to break it.

The father then took the bundle, untied the strings, and, taking each stick by itself, broke it easily.

"We could have done that, too," said the boys.

"This shows you," said the father, "how easy it is to break them if they are separate but how hard it is if they are tied together. If you boys always work together you can see how strong you will be; but if you are always quarreling and at odds how easy it will be for others to take advantage of you."

THE WIND AND THE SUN

A dispute once arose between the wind and the sun as to which was the stronger.

"I know I am the stronger," said the wind, "for I am able to tear up the earth, break down the trees, and raise great waves that the ships are not able to weather."

"But I am sure I am the stronger," said the sun. "I bring the water from the ocean and carry it over the land to water the valleys. I parch the deserts and were it not for me there would be no light or summertime."

Thus they disputed but at last they decided to make a test.

"There comes a traveler," said the wind. "We will try our strength on him. The one who is able to make him take off his coat first will be judged the stronger."

"You may have the first chance," said the sun.

The wind began to blow with all his might. The traveler clasped his coat tightly about him but was able to keep it from blowing away. He finally ran into a little cave for shelter.

As soon as the wind had ceased blowing, having failed to make the traveler remove his coat, the sun came out and shone warmly upon him. The sun shone brighter and brighter and finally the traveler became so warm that he took off his coat, threw it on the ground, and sat down under a tree for shelter.

"I admit that you are the stronger," said the wind, "and it seems that you have gained your end by gentle persuasion where I have not been able to gain it by bluster and strength."

THE FOX AND THE CROW

One day a crow had stolen a piece of cheese from out a window and had flown with it into a high tree and was eating it with great enjoyment. A fox coming along, spied the crow with the dainty morsel, and decided to have it for his own.

"O crow," said he, "how beautiful your wings are, how bright are your eyes, how graceful your neck! You have the breast of an eagle. Your talons are a match for all the beasts of the field. Is it not sad that you should only lack a voice?"

The crow was much pleased with this flattery and thought to herself, "I will surprise that fox by showing him I do have a voice." So she opened her mouth to let out a caw and of course the cheese dropped to the ground. This was what the fox was waiting for. He picked it up and went his way, and as he went remarked, "You may have plenty of beauty but you are quite lacking in brains."

THE DOG AND THE SHADOW

A dog had stolen a piece of meat from a butcher shop and was running with it across a plank that served as a bridge over a stream. When he was about half way across he happened to glance down and noticed his features in the water. They appeared to him like those of another dog carrying another piece of meat, and, as he was a

greedy fellow, he decided not only to have his own piece but the other as well. He grabbed at the meat but as he did so let go the piece in his mouth, which dropped into the water and was carried away.

"Well it served me right," said the dog, "by trying to get more than I was entitled to I have lost the piece that I had."

THE FOX AND THE STORK

One day a fox invited a stork for dinner and, thinking to have some fun at the expense of the stork, provided some thin soup in a shallow dish. This the fox was able to lap up very readily but on account of the stork's long bill she was unable to get any of the dinner and of course went away hungry. The fox pretended to be very sorry that the stork did not seem to have more appetite and said, "I am afraid you are not satisfied with the way the soup is seasoned."

The stork did not say anything but made up her mind to get even with her friend, the fox. So she begged the fox to come to dinner with her on the following day. The next day the fox was on hand promptly expecting a good dinner. When the dinner was served he was astonished to find that it was served in a tall vessel with a long narrow neck. It was of course easy for the stork to thrust her long bill down this neck and eat the food but the fox was unable to get any of it, so all he could do was to lick the neck of the jar and, of course, went home hungry.

"I can hardly find fault with this entertainment," said the fox, "but it looks surely as if I had been paid back in my own coin."

THE DOG IN THE MANGER

A cross old dog had lain down in a manger full of hay and gone to sleep. After a while the horses and oxen came up and began to eat the hay but the dog woke and began to growl at them.

"Do you want to eat that hay?" said the oxen.

"Of course I don't," said the dog. "You don't think I eat hay, do you?"

"Then you will let us have it," said the oxen.

"No, I will not let you have it," said the dog.

"That is a fine way of doing things," said the oxen. "You will neither eat the hay or let us eat it."

THE HARE AND THE TORTOISE

A hare was making fun of a tortoise on account of the slowness of his pace. This, however, did not make the tortoise angry but he laughed and said, "I will run against you any day you name, and beat you, too."

"Come on," said the Hare. "You will soon see what my feet are made of."

So they agreed that they would start at once. The tortoise started off without a moment's stopping, and, while not going very fast, kept at it steadily. The hare thinking the whole matter was a joke said, "I might as well take a little nap first. It will not be difficult to overtake the tortoise after I have had my sleep."

While the hare was sleeping the tortoise plodded on and the hare, not waking up when he expected to, did not reach the goal until after the tortoise had been there some time.

"You see," said the tortoise, "that it is not swiftness that counts, but it is slow and steady that wins the race."

BELLING THE CAT

The mice in a certain house were much troubled by an old black cat.

"We can't get a thing to eat," said one little mouse.

"She always seems to be around when we are trying to steal something," said another.

"Let's frighten her away," said a third.

They discussed for some time how they could dispose of the old cat. One suggested that they bite her. Finally, one of the brightest of the mice said, "I have a plan. Let's hang a bell around her neck. Then we can hear her when she comes near."

"That is fine," said another.

"What a bright idea!" said the third.

"The only question is, who will tie the bell around the cat's neck," said the bright mouse.

Of course no one answered.

"I would be glad to," said one of the mice, "only one of my eyes is blind."

"I would," said another, "only I am lame in one leg where I was caught in a trap."

"I would," said a third, "only I have been deaf ever since that kettle fell on me."

Then the mice looked at each other and at last all crept away to their beds and the cat is still as free as before.

Good advice to be of any value must be practical.

WOLF! WOLF!

A boy was out tending a flock of sheep not far from a village and, as it was quite lonesome, he thought he would have some fun with some men who were working not far away. So he ran up to them in great excitement and shouted, "Wolf! Wolf!"

The men came hurrying to him to kill the wolf, but as they drew near, he merely laughed at them, telling them it was all a joke.

He had been so successful in this trick he thought he would try it the next day, and again the men came running out of breath as he shouted. They of course were angry the second time. The following day the wolf really came and the boy ran in great excitement crying, "Wolf! Wolf! The wolf is here!"

But the men had been fooled twice and, thinking it was only a joke, they laughed at him and would not come at once to help him. While they were delaying the wolf ate the sheep.

The boy thus learned, to his sorrow, that a liar is not to be believed even when he tells the truth.

THE ANTS AND THE GRASSHOPPER

There was a family of ants that lived on a hillside. They had a little house and a little farm, too. There they toiled and worked and gathered their food to store away for winter. They were always working, gathering food and putting it away where they would have it when the warm summer days had passed.

A grasshopper lived in a field near by but he did not trouble to work. He sang and danced all day long. He laughed at the little ants for working so hard and said, "Why do you not dance and sing as I do?"

The ants answered, "If we don't work and save up food all summer what would we have to eat in the winter?"

The grasshopper laughed at them and said, "Oh! winter is a long way off. I'll work some day, but now I am going to dance."

By and by the summer was gone and one night it turned very cold. The ants ran into their houses and shut the door, but the grasshopper had been dancing and

singing all through the warm summer and never got around to do any work. Now it was so cold he did not have any pleasure in dancing and soon became very hungry as the snow was falling and there was nothing left to eat.

By and by he came to the door of the ants' house and rapped. The ants could not imagine who could be rapping at their door at this time, but finally one of them opened it a little crack and there stood the poor shivering grasshopper. The ants, however, did not feel like giving him any shelter or anything to eat, so they said to him, "Last summer you danced and sang while we worked. Now you may shiver while we are warm and have plenty to eat."

THE COUNTRY MOUSE AND THE TOWN MOUSE

There was a country mouse who had a friend living in town. He thought on account of being acquainted a long time he would invite this friend to visit him in the country. By and by the town mouse came to visit his friend and the country mouse tried his best to make the visit pleasant and to show that he was glad to see him. While he did not have a great store of fine food, he brought forth everything he did have—peas and barley and cheese parings and nuts—so as to make his friend appear doubly welcome.

The town mouse ate a little but did not appear very hungry and at last said, "How is it, my good friend, that you can live in such a dull place as this? Why do you live like a toad in a hole? Where I live the streets are alive with teams and carriages and men while here there is nothing but solitary rocks and woods. It seems to me that you are wasting your time. You ought to make the most of your life while it lasts. A mouse, you know, does not live forever. Come on to town with me and I will show you how it is to live."

The city mouse had such fine manners and was such a good talker that the country mouse was quite dissatisfied with things and decided to pay a visit to his city friend.

Late one evening they entered the city quietly and finally reached the great house where the town mouse lived. Here were couches of velvet, carvings, and ivory and everything that showed the people were very rich. On the table were the remains of a banquet. Everything that the city was able to provide had been furnished.

The city mouse invited his country friend to climb upon the table. They tasted a dish here and another dish there, the city mouse out-doing himself to make an impression on his country friend.

The country mouse pretended to be quite at home and thought surely he had been more than fortunate to have come to such a pleasant place. While they were enjoying themselves to the greatest extent and while the country mouse was thinking about the poor fare which he had left in the country and his humble home, the revelers burst into the room with great noise. The friends jumped from the table in great fear and hid themselves in the first corner they could reach. No sooner had they come out than they heard dogs barking and were driven back in greater fear than before.

At length when everything was quiet the country mouse crawled out and said good-bye to his friend.

"You are not going to leave," said the town mouse.

"Yes," replied the country mouse. "This fine way of living may do for those who like it, but I would rather have my barley bread and not be in fear of my life than to have these fine things."

MYTHS, LEGENDS AND HERO TALES.

CHICKOKEE AND SHAKAMAH

After a long, long time the world began to cool. Then said Chickokee to Shakamah, "Now the dreadful fire and flood are over. The world is pleasant to live in. But let us not dwell here alone. Let us make more men like ourselves."

"Aye," said Shakamah, "it is well said, but do you know how?"

"Indeed," said Chickokee, "it is easy if one knows how. But first we must kill Waboosa, the Crow, Shawcoco, the Raven, and Tamdohka, the Turkey Buzzard, for these three are enemies to men. And there is but one way to kill them. It is to feign death. So go you into the wigwam and do not stir from it till you see me returning by yonder forest."

So Shakamah went into the wigwam and Chickokee went far away on the prairie and pretended to be dead. He spread his arms, closed his eyes, and let his tongue hang out.

When Waboosa, the Crow, Shawcoco, the Raven and Tamdohka, the Turkey Buzzard, saw this they said among themselves, "He is dead. Let us devour him."

So they flew down to earth and when they had made a stand on the ground they began to devour the great Chickokee. But no sooner had they begun than Chickokee caught them all in his arms. "I will make you what you most hate," he said, and he carried them all to the wigwam where Shakamah was waiting. "Pick off all the feathers," he commanded, "and do not lose one of them." So they plucked off all the feathers and they laid them away, three in each pile. Then they rested all night, and in the morning Shakamah and Chickokee took the feathers and they planted them three in each place many miles apart. They were gone many days and when they came back over the path they had traveled there were many villages and hundreds of men. And in each village there was a chief, a medicine man, and a mother from the three feathers they had planted there. And that is how the world of men began.

PERSEPHONE

The changes in the seasons were hard for the early Greek people to understand so they used to invent stories to account for them, making the gods the central figure in these stories. This is the story that the ancient Greeks would have told their children as to why we have the different seasons of the year.

Many years ago a happy child named Persephone wandered up and down the country all day long gathering flowers and grasses and singing her sweet songs as she ran about. The grass whispered to her and the flowers looked up to her with joy. Everybody loved her, for her coming always meant that warmth and beauty would be over all the land. Demeter, the mother of Persephone, was much beloved by the people of the earth, for with Demeter came the fruit and harvest and ripe grains. While Persephone was playing among the flowers Demeter was working hard in every land, but Persephone was not afraid nor was she lonely. She was the "Queen of Flowers" and the trees protected her and gave her shade when she was tired and fell asleep.

Pluto, the king of the underworld, also loved Persephone, and one day while she was sitting among the flowers she heard a great rumbling across the plain. It came nearer and nearer until finally it stopped just beneath Persephone's feet. The earth suddenly opened and there she saw a chariot of gold and silver drawn by six black horses and in the chariot sat the king. He leaned forth from the chariot and beckoned to the girl. He reached out and lifted her from the field and placed her on the seat beside him. Swiftly they drove away and before Persephone had time to think they went down deep into the earth to the home of King Pluto.

At the close of day Demeter came to look for her daughter. She asked the flowers but she was unable to find her and no one had seen where she had gone. The flowers had wilted and the trees had dropped their leaves and the branches stood bare against the sky.

"Someone has stolen my beautiful child," said poor Demeter. Then she grew angry and said to the gods, "I will not work any more in the harvest fields nor will I watch the grains or fruits until my child is restored to me."

She wrapped a black cloak about her and set out searching for her child. To the sun god she cried, "Surely you know all that has happened upon the earth. You must know what has happened to my child!"

The sun god replied, "I am surely distressed at your great sorrow, but all I know is, that as my chariot rolled over the fields at mid-day the earth broke open and the chariot of Pluto burst forth. It is he that has stolen your child away."

Demeter was now very angry and said, "I will have vengeance upon those who allowed my child to be thus taken from me."

She wrapped her dark cloak about her and wandered until finally she came to a fountain and threw herself on the grass to weep. For a whole year Demeter thus sat. The grass grew brown and died. The trees dropped their leaves. There was no fruit or flowers and there was great famine in the land.

"What do I care," said Demeter. "The people's loss is not so great as my own. If my child is brought back to me, then will I care for the people of the earth."

There was much distress among them. The people met and offered sacrifices. They begged of the gods that both Demeter and Persephone might be returned to the earth. Then Zeus sent his messenger, Hermes, to Pluto's kingdom and instructed him to allow Pluto to return to the earth. Old King Pluto was very angry and his face grew black and the earth rumbled and rocked. The people trembled and clung to each other fearing the earth would open and swallow them up. But Pluto did not dare disobey the demand of Zeus, even though he loved the beautiful Persephone and made her queen of all his kingdom. But before he allowed her to go he asked her to eat one little pomegranate seed. He knew if she did this she must some time return to him.

When Persephone reached the earth, everything was sad and dreary. She went at once to her mother who was still sitting by the fountain wrapped in her black robe.

At sight of Persephone, Demeter sprang to her feet and tears of joy ran down her face as she clasped her child to her breast. A change came over the earth. A new softness and sweetness was in the air. The grass began to grow green and the birds renewed their song.

"The flower queen is coming!" the grass whispered, and the trees and the birds all sang their welcome. For six months there was light and joy in the land. There were beautiful flowers and sweet fruits and grains in plenty. The people were busy and happy caring for their crops and filling their storehouses. The birds and the animals laid up their store for winter and the birds sang from morn till night.

One day there came a sharp, cold wind across the earth, but it did not bring sadness as it had before for the store-houses were full and there was no fear in the heart of men and animals. To Demeter, however, grief came again, for Persephone must return to the underworld. She had pledged Pluto that at the end of one-half year she would again go back to reign as queen in his kingdom.

"But do not grieve, dear mother. I am happy and Pluto is very kind to me, and he has promised that every half year I shall return to the earth to make you and it glad."

Just then they heard the rumbling of Pluto's chariot wheels and Pluto appeared and took Persephone away.

Persephone said, "In six months I shall come again so do not grieve."

Thus it is that we have six months of autumn and winter, and six months of

spring and summer when Persephone comes back to us to make the earth glad with fruits and flowers.

THOR

In the days of long ago the people of the earth tried to invent stories to account for the rain and the snow, the sunshine and seasons. Not alone among the Greeks was this the case but also among the Norse people of the Northland. While the Greek stories were tempered by the beautiful climate of Greece, the Norse stories, on the other hand, were rugged and harsh, due to the extremes of weather in the Northland. One of the stories deals with thunder and lightning, and with the god of these elements whom they called Thor.

Thor was the son of Odin and was a friend of gods and men. When the gods were in difficulty they called upon him, and when evil spirits played their tricks upon mankind Thor was the one who was looked to for deliverance.

Thor possessed a wonderful hammer which was named Mjolnir, "the smasher." When he threw it it would come back to his hand of its own accord. Thielfi, the swift runner, was his servant and did his errands for him.

The frost giants hated Thor. Whenever he would throw his wonderful hammer the thunder and the lightning would come and also the rain and showers. This the frost giants did not like and they tried their best to steal from Thor his magic hammer.

"Let us steal from Thor this hammer and thus take away his power," said Thrym, the greatest of the frost giants. "I will go to the city of Asgard and when the gods are asleep I will steal the hammer from Thor." So Thrym went to the city of Asgard and when the gods were asleep entered quietly and stole from Thor the magic hammer. As he entered, the gods all shivered while they were asleep but they did not realize what chilled them. In the morning there was frost over everything but the magic hammer was gone.

"Where is my hammer," shouted Thor when he awoke and found it was gone. "I think I know where it is. The frost giants have stolen it from me."

So he sent his servant to the castle of the frost giants, demanding that they return to him the hammer. The frost giants refused, but finally agreed that if Thor would send Freya, the Goddess of the Harvest, to them they would return the hammer. Thor's servant returned and told Thor what the giants had demanded.

"Bring me a dress," said Thor, "and I will go. Put a necklace upon my neck and a veil upon my head. Those stupid giants will not know that I am not Freya." Thor was dressed and set out in his chariot. The thunder rolled. The lightning flashed from Thor's eyes. By and by he came to the home of the frost giants. There was rejoicing among them for they thought Freya had arrived.

"Come, they said, let us have a feast. All the giants gathered at the call of the frost giants and there was a banquet in the huge castle hall. Thor sat through it all quiet and motionless, as he did not dare to speak nor raise his veil for fear the thunder would issue from his lips and lightning shoot from his eyes.

After they had finished their feast the giants demanded that the veil be raised from Freya's face but Thor's servant said, "No—not until the hammer is placed in her hands." Then they brought the hammer and placed it in the hands of Freya, as they supposed.

Just as Thor seized the hammer in his hands the thunder began to rumble and Thor sprang from his seat swinging the hammer right and left. The hills rocked. The giants were much frightened and ran behind the mountains and hid, for the air was white with lightning.

Then Thor called the chariot of the sun god and sped back to the city of the gods. Never again did the giants attempt to steal the hammer of the mighty Thor.

APOLLO, THE SUN GOD

Long ago when the earth was young there was darkness upon the earth. Then there came from Mount Olympus Leto, the beautiful, carrying in her arms a sunny-haired baby boy. To the people of the earth she said, "Let us dwell in your land and we will bring to you the light of day. If the sun god abide with you and you give him shelter I will bring you power and wealth, rich harvests and beautiful flowers."

The king of Greece answered her and said, "We know that all these things are promised to the lands where the sun god shall dwell, but we are afraid of you and your terrible beauty."

"We know that such a god is promised," said the king of Athens, "but how do we know that you are the mother of this wonderful god? We do not dare open our gates to you. Go away! Go away! and we will await the coming of Apollo."

Leto thus wandered from land to land, being refused a dwelling place until at last she came to the little barren island of Delos. This island was a very desolate place with barren fields and bleak wild mountains and rocky shores. The people of the island were poor and ignorant and the king had neither wealth nor power and was hardly known among the other peoples of the earth.

"Listen to my voice, good king," said Leto, "and let me dwell in your land and I will bring wealth and great power to your people. If you will welcome me and my child, the sun god Apollo, the island of Delos shall be a temple and to its altars shall come all the people of the earth bringing offerings."

"Surely this wonderful god Apollo would not care to dwell within our land," answered the king. "The soil is rocky, the mountains are bleak, and our people are fierce. This would certainly be an unhappy home for the fair Apollo."

But Leto continued to plead and the good king answered, "Let it never be said that we have failed to welcome any stranger that comes to our shores. Enter thou and thy child and rest in Delos."

Then Leto and Apollo entered the island of Delos and made it their home and for a time darkness grew deeper upon the island and the king and all his people slept, but they dreamed happy dreams, dreams of glory and power and splendor such as the earth had never known. After a time the king and people woke and upon the mountain tops they saw a new strange light shining behind the rocky pillars. The light grew brighter and upon the mountain tops stood Apollo, the sun god, with his hair shining like gold. He smiled upon plain and valley and they blossomed into brilliant color; grains and grasses waved in the wind and flowers and fruit sprang up everywhere. The whole land was filled with the richest colors and the sweetest odors, for Apollo, the sun god, had come and ever made his home in Delos and there was joy among the people of the island.

THE SHIPWRECK OF ULYSSES.

At the stern of his solitary ship Ulysses sat, and steered right artfully. No sleep could seize his eyelids. He beheld the Pleiads, the Bear which by some is called the Wain, that moves round about Orion, and keeps still above the ocean, and the slow-setting sign Boötes, which some name the Wagoner.

Seventeen days had he held his course, and on the eighteenth the coast of Phæacia was in sight. The figure of the land, as seen from the sea, was pretty and circular, and looked something like a shield.

Neptune, returning from visiting his favorite Æthiopians, from the mountains of Solymi, descried Ulysses plowing the waves, his domain. The sight of the man he so much hated for the sake of Polyphemus, his son, whose eyes Ulysses had put out, set the gods heart on fire, and snatching into his hand his horrid sea scepter, the trident of his power, he smote the air and the sea, and conjured up all

his black storms, calling down night from the cope of heaven, and taking earth into the sea, as it seemed, with clouds, through the darkness and indistinctness which prevailed, the billows rolling up before the fury of the winds that contended together in their mighty sport.

Then the knees of Ulysses bent with fear, and then all his spirit was spent, and he wished that he had been among the number of his countrymen who fell before Troy, and had their funerals celebrated by all the Greeks, rather than to perish thus, where no man could mourn or know him.

As he thought these melancholy thoughts, a huge wave took him and washed him overboard, ship and all upset among the billows, he struggling afar off, clinging to her stern broken off which he yet held, her mast cracking in two with the fury of that gust of mixed winds that struck it. Sails and sailyards fell into the deep, and he himself was long drowned under water, nor could get his head above, wave so met wave, as if they strove which should depress him most; and the gorgeous garments given him by Calypso clung about him, and hindered his swimming.

Yet neither for this, nor for the overthrow of his ship, nor his own perilous condition, would he give up the drenched vessel; but, wrestling with Neptune, got at length hold of her again, and then sat in her hulk, exulting over death, which he had escaped, and the salt waves which he gave the sea again to give to other men: his ship, striving to live, floated at random, cuffed from wave to wave, hurled to and fro by all the winds: now Boreas tossed it to Notus, Notus passed it to Eurus, and Eurus to the West Wind, who kept up the horrid tennis.

Them in mad sport Ino Leucothea beheld; Ino Leucothea, now a sea goddess, but once a mortal and the daughter of Cadmus; she with pity beheld Ulysses the mark of their fierce contention, and rising from the waves alighted on the ship, in shape like to the sea bird which is called the cormorant, and in her beak she held a wonderful girdle made of seaweeds which grow at the bottom of the ocean.

This girdle she dropped at his feet; and the bird spoke to Ulysses, and counseled him not to trust any more to that fatal vessel against which Neptune had leveled his furious wrath, nor to those ill-befriending garments which Calypso had given him, but to quit both it and them, and trust for his safety to swimming.

"And here," said the seeming bird, "tie firmly about your waist this girdle, which has virtue to protect the wearer at sea, and you shall safely reach the shore; but when you have landed, cast it far back from you into the sea."

He did as the sea bird instructed him; he stripped himself naked, and fastening the wondrous girdle about his waist, cast himself into the sea to swim. The bird dived past his sight into the fathomless abyss of the ocean.

Two days and nights he spent in struggling with the waves, though sore buffeted and almost spent, never giving himself up for lost, such confidence he had in the charm which he wore about his middle, and in the words of that divine bird.

But the third morning the winds grew calm, and all the heavens were clear. Then he saw himself nigh land, which he knew to be the coast of the Phæacians, a people good to strangers, and abounding in ships, by whose favor he doubted not that he should soon obtain a passage to his own country.

And such joy he conceived in his heart, as good sons have that esteem their father's life dear, when long sickness has held him down to his bed, and wasted his body, and they see at length health return to the old man, with restored strength and spirits, in reward of their many prayers to the gods for his safety—so precious was the prospect of home return to Ulysses, that he might restore health to his country (his better parent) that had long languished as full of distempers in his absence.

And then for his own sake he had joy to see the shores, the woods, so nigh and

within his grasp as they seemed; and he labored with all the might of hands and feet to reach with swimming that nigh-seeming land.

But when he approached near, a horrid sound of a huge sea beating against rocks informed him that here was no place for landing, nor any harbor for man's resort; but through the weeds and the foam which the sea belched up against the land he could dimly discover the rugged shore all bristled with flints, and all that part of the coast one impending rock that seemed impossible to climb, and the water all about so deep, that not a sand was there for any tired foot to rest upon.

Every moment he feared lest some wave more cruel than the rest should crush him against a cliff, rendering worse than vain all his landing; and should he swim to seek a more commodious haven farther on, he was fearful lest, weak and spent as he was, the winds would force him back a long way off into the main, where the terrible god Neptune,—for wrath that he had so nearly escaped his power, having gotten him again into his domain,—would send out some great whale to swallow him up alive; with such malignity he still pursued him.

While these thoughts distracted him with diversity of dangers, one bigger wave drove against a sharp rock his naked body, which it gashed and tore, and wanted little of breaking all his bones, so rude was the shock.

But in this extremity she prompted him that never failed him at need. Minerva (who is wisdom itself) put it into his thoughts no longer to keep swimming off and on, as one dallying with danger, but boldly to force the shore that threatened him. . . . She guided his wearied and well-nigh exhausted limbs to the mouth of the fair river Callirrhoë, which not far from thence disbursed its watery tribute to the ocean. Here the shores were easy and accessible, and the rocks, which rather adorned than defended its banks, were so smooth that they seemed polished of purpose to invite the landing of our sea wanderer, and to atone for the uncourteous treatment which those less hospitable cliffs had afforded him.

And the god of the river, as if in pity, stayed his current and smoothed his waters, to make easy the landing of Ulysses. . . .

So by favor of the river's god Ulysses crept to land, half drowned; both his knees faltering, his strong hands falling down through weakness from the excessive toils he had endured, his cheek and nostrils flowing with froth of the sea brine, much of which he swallowed in that conflict; voice and breath spent, down he sank as in death. Dead weary he was. It seemed that the sea had soaked through his heart, and the pains he felt in all his veins were little less than those which one feels that has endured the tortures of the rack.

But when his spirits came a little to themselves, and his recollection by degrees began to return, he rose up, and unloosing from his waist the girdle or charm which the divine bird had given him, and remembering the charge which he had received with it, he flung it from him into the river. Back it swam with the course of the ebbing stream till it reached the sea, where the fair hands of Ino Leucothea received it to keep it as a pledge of safety to any future shipwrecked mariner, that like Ulysses should wander in those perilous waves. . . .

Ulysses then bent his course to the nearest woods, where, entering in, he found a thicket, mostly of wild olives and such low trees, yet growing so intertwined and knit together that the moist wind had not leave to play through their branches, nor the sun's scorching beams to pierce their recesses, nor any shower to beat through, they grew so thick and as it were folded each in the other.

Here creeping in, he made his bed of the leaves which were beginning to fall, of which such was the abundance that two or three men might have spread them ample coverings, such as might shield them from the winter's rage, though the air breathed steel and blew as if it would burst.

Here, creeping in, he heaped up store of leaves all about him, as a man would pile billets upon a winter fire,—and lay down in their midst. Rich seed of virtue

lying hid in poor leaves! Here Minerva gave him sound sleep; and here all his long toils past seemed to be concluded and shut up within the little sphere of his refreshed and closed eyelids.

—*Homer.*

[Paraphrase by Charles Lamb; from the Translation by George Chapman.]

THE LOST CAMEL

Once upon a time some Arabs were traveling with a camel. They stopped at an inn to get their dinner and while they were eating the camel wandered away. When they came out of the inn they were much excited and started out hurriedly in search of the animal.

Presently they met a dervish who as he drew near them asked, "Friends have you lost a camel?"

"Yes, we have," answered the Arabs.

"Was he lame in the left leg?" asked the dervish.

"Yes, our camel was lame in the left leg. Where did you see him?"

"Was he blind in the right eye?"

"Yes, truly he was blind in the right eye. Surely you must have been very close to him."

"Was his load honey on one side and wheat on the other?"

"Yes! Yes! Please take us to the place where you have this camel."

"Had he lost a front tooth?" asked the dervish.

"Yes, surely we know now you must have taken our camel or you would not know so much about him."

"I have not seen your camel," replied the dervish. "You had better go and hunt for him down the road."

"You do not mean to tell us that you have not seen our camel!" exclaimed the Arabs.

"I certainly have not," replied the dervish.

Then the Arabs seized the dervish and took him before the *cadi*, or judge, where they told what the dervish had said and demanded that he deliver to them their camel. The dervish replied to the judge, "I have not seen this camel."

"How then," said the judge, "if you have not seen this camel, do you know there is one lost?"

"I saw tracks of a camel in the road and I concluded he was alone as I did not see any man's tracks with him."

"How did you know that the camel was lame?"

"I saw that one foot made a lighter track than the others."

"How did you know that he was blind in the left eye?"

"Because he ate grass only from the right side of the path."

"Then tell me how you knew what his load was."

"I saw the ants carrying away some wheat from one side of the road and the bees were gathering where honey drops had fallen on the other."

"Then please tell me how you could know that he had lost a tooth."

"That was very easy to determine," replied the dervish, "for in the place where he had eaten the grass there was a little strip left that was not bitten off."

"You are free to go," said the *cadi*. "You have better eyes than most men and it is clear to me that you make very good use of them."

THE SPARTAN THREE HUNDRED.

This is the tale of the greatest deed of arms that was ever done. The men who fought in it were not urged by ambition or greed, nor were they soldiers who knew not why they went to battle. They warred for the freedom of their country, they

were few against many, they might have retreated with honor, after inflicting great loss on the enemy, but they preferred, with more honor, to die.

The Great King—as the Greeks called Xerxes, the Persian monarch—was leading the innumerable armies of Asia against the small and divided country of Greece. It was then split into a number of little States, not on good terms with each other, and while some were for war, and freedom, and ruin, if ruin must come, with honor, others were for peace and slavery.

The Greeks, who determined to resist Persia at any cost, met together at the Isthmus of Corinth, and laid their plans of defense. The Asiatic army, coming by land, would be obliged to march through a narrow pass called Thermopylæ, with the sea on one side of the road, and a steep and inaccessible precipice on the other. Here, then the Greeks made up their minds to stand. They did not know, till they had marched to Thermopylæ, that behind the pass there was a mountain path, by which soldiers might climb round and over the mountain, and fall upon their rear.

As the sea on the right hand of the Pass of Thermopylæ lies in a narrow strait, bounded by the island of Eubœa, the Greeks thought that their ships would guard their rear and prevent the Persians from landing men to attack it. Their army encamped in the Pass, having wide enough ground to maneuver in, between the narrow northern gateway, so to speak, by which the invaders would try to enter, and a gateway to the south. Their position was also protected by an old military wall, which they repaired.

The Greek general was Leonidas, the Spartan king. He chose three hundred men, all of whom had sons at home to maintain their families and to avenge them if they fell. Now the manner of the Spartans was this: to die rather than yield. However sorely defeated, or overwhelmed by numbers, they never left the ground alive and unvictorious, and as this was well known, their enemies were seldom eager to attack such resolute fighters.

Besides the Spartans, Leonidas led some three or four thousand men from other cities, and he was joined at Thermopylæ by the Locrians and a thousand Phocians. Perhaps he may have had six or eight thousand soldiers under him, while the Persians may have outnumbered them by the odds of a hundred to one. Why, you may ask, did not the Greeks send a stronger force?

The reason is very characteristic. They were holding their sports at the time, racing, running, boxing, jumping, and they were also about to be engaged in another festival. They would not omit or put off their games, however many thousand barbarians might be knocking at their gates. There is something boyish and something fine in this conduct; but we must remember, too, that the games were a sacred festival, and that the gods might be displeased if the games were omitted.

Leonidas, then, thought that at least he could hold the Pass till the games were over, and his countrymen could join him. But when he found, on arriving at Thermopylæ, that he would have to hold two positions, the Pass itself, and the mountain path, of whose existence he had not been aware, then some of his army wished to return home. But Leonidas refused to let them retreat, and bade the Phocians guard the path across the hills, while he sent home for reënforcements. He could not desert the people whom he had come to protect. Meanwhile the Greek fleet was also alarmed, but was rescued by a storm which wrecked many of the Persian vessels.

Xerxes was now within sight of Thermopylæ. He sent a horseman forward to spy out the Greek camp, and this man saw the Spartans amusing themselves with running and wrestling, and combing their long hair, outside the wall. They took no notice of him, and he, returning, told Xerxes how few they were, and how unconcerned.

Xerxes then sent for Demaratus, an exiled king of Sparta in his camp, and asked what these things meant. "O king!" said Demaratus, "this is what I told you of yore, when you laughed at my words. These men have come to fight you for the

Pass, and for that battle they are making ready, for it is our country fashion to comb and tend our hair when we are about to put our heads in peril."

Xerxes would not believe Demaratus. He waited four days, and then, in a rage, bade his best warriors, the Medes and Cissians, bring the Greeks into his presence. The Medes, who were brave men, and had their defeat at Marathon, ten years before, to avenge, fell on; but their spears were short, their shields were thin, and they could not break a way into the stubborn forest of bronze and steel.

In wave upon wave, all day long, they dashed against the Greeks, and left their best lying at the mouth of the Pass. "Thereby was it made clear to all men, and not least to the king, that men are many, but heroes are few."

Next day Xerxes called on his body guard, the Ten Thousand Immortals, and they came to close quarters, but got no more glory than the Medes. Thrice the king leaped from his chair in dismay as thrice the Greeks drove the barbarians in rout. And on the third day they had no better fortune.

But there was a man, a Malian, whose name is a scorn to this hour; he was called Ephialtes. He betrayed to Xerxes the secret of the mountain path, probably for money. He later fled to Thessaly with a price on his head; but he returned to Anticyra, and there he was slain by Athenades.

Then Xerxes was glad beyond measure when he heard of the path, and sent his men along the path by night. They found the Phocians guarding it, but the Phocians disgracefully fled to the higher part of the mountain. The Persians, disdainful to pursue them, marched to the pass behind the Spartan camp, and the Greeks were now surrounded in van and rear.

But news of this had come to Leonidas, and his army was not of one mind as to what they should do. Some were for retreating and abandoning a position which it was now impossible to hold. Leonidas bade them depart; but for him and his countrymen it was not honorable to turn their backs on any foe.

He sent away the soothsayer, or prophet, Megestias, but he returned, and bade his son go home. Thus there remained what was left of the Three Hundred, their personal attendants, seven hundred Thespians, some Thebans, about whose conduct it is difficult to speak with certainty, as accounts differ.

Leonidas, on this last day of his life, did not wait to be attacked in front and rear, but sallying into the open, himself assailed the Persians. They drove the barbarians like cattle with their spears; the captains of the barbarians drove them back on the spears with whips.

Many fell from the path into the sea, and there perished, and many more were trodden down and died beneath the feet of their own companions. But the spears of the Greeks at last broke in their hands, so they drew their swords, and rushed to yet closer quarters.

In this charge fell Leonidas, "the bravest man," says the Greek historian, "of men whose name I know," and he knew the names of all the Three Hundred. Over the body of Leonidas fell the two brothers of Xerxes, for they fought for the corpse, and four times the Greeks drove back the Persians.

Now came up the Persians with the traitor Ephialtes, attacking the Greeks in the rear. Now was their last hour come, so they bore the body of the king within the wall. There they occupied a little mound in a sea of enemies, and there each man fought till he died.

Among them all, none made a better end than Eurytus. He was suffering from a disease of the eyes, but he bade them arm him, and lead him into the thick of the battle. Of another, Dieneces, it is told, that hearing the arrows of the Persians would darken the sun, he answered, "Good news! we shall fight in the shade." One man only, Aristodemus, who was also suffering from a disease of the eyes, did not join his countrymen, but returned to Sparta. There he was scouted for a coward,

but, in the following year, he fell at Plataea, excelling all the Spartans in deeds of valor.

This is the story of the Three Hundred. The marble lion erected where Leonidas fell has perished; and perished has the column engraved with their names; but their glory is immortal.

—*Paraphrase from Herodotus.*

THE FIRST VOYAGE OF SINBAD, THE SAILOR

I had a father, a merchant, who was one of the first in rank among the people and the merchants, and who possessed abundant wealth and ample fortune. He died when I was a young child, leaving to me wealth and buildings and fields; and when I grew up I put my hand upon the whole of the property, ate well and drank well, associated with the young men, wore handsome apparel, and passed my life with my friends and companions, feeling confident that this course would continue and profit me; and I ceased not to live in this manner for a length of time. I then returned to my reason, and recovered from my heedlessness, and found that my wealth had passed away, and my condition had changed, and all the money that I had possessed had gone.

Upon this, I resolved, and arose and bought for myself goods and commodities and merchandise, with such other things as were required for travel; and my mind had consented to my performing a sea voyage. So I entered in a ship, and it descended to the city of Balsora, with a company of merchants, and we traversed the sea for many days and nights. We had passed by island after island, and from sea to sea, and from land to land; and in every place by which we passed we sold and bought, and exchanged merchandise. We continued our voyage until we arrived at an island like one of the gardens of Paradise, and at that island the master of the ship brought her to anchor with us. He cast the anchor, and put forth the landing plank, and all who were in the ship landed upon that island. They had prepared for themselves fire pots, and they lighted the fires in them; and their occupations were various; some cooked; others washed; and others amused themselves.

But while we were thus engaged, lo, the master of the ship, standing upon its side, called out with his loudest voice: "Come up quickly into the ship, hasten to embark, and leave your merchandise, and flee with your lives, and save yourselves from destruction. For this apparent island, upon which ye are, is not really an island, but it is a great fish that hath become stationary in the midst of the sea, and the sand hath accumulated upon it, so that it hath become like an island, and trees have grown upon it since the times of old. And when ye lighted upon it the fire, it felt the heat, and put itself in motion, and now it will descend with you into the sea, and ye will all be drowned; then seek for yourselves escape before destruction, and leave the merchandise!"

The passengers, therefore, hearing the words of the master of the ship, hastened to go up into the vessel, leaving the merchandise, and their other goods, and their copper cooking pots, and their fire pots; and some reached the ship, and others reached it not. I was among the number of those who remained behind upon the island, so I sank in the sea with the rest who sank. But God delivered me and saved me from drowning, and supplied me with a great wooden bowl, of the bowls in which the passengers had been washing, and I laid hold upon it and got into it, induced by the sweetness of life, and beat the water with my feet as with oars, while the waves sported with me, tossing me to the right and left. The master of the vessel had caused her sails to be spread, and pursued his voyage with those who had embarked, not regarding such as had been submerged and I ceased not to look at that vessel until it was concealed from my eye.

I made sure of destruction, and night came upon me while I was in this state;

but I remained so a day and a night, and the winds and the waves aided me until the bowl came to a stoppage with me under a high island whereupon were trees overhanging the sea. I threw myself upon the island like one dead, and was unconscious of my existence, and drowned in my stupefaction, and I ceased not to remain in this condition until the next day. The sun having then risen upon me, I awoke upon the island, and found that my feet were swollen, and that I had become reduced to the state in which I then was. Awhile I dragged myself along in a sitting posture, and then I crawled upon my knees. And there were in the island fruits in abundance, and springs of sweet water. I therefore ate of those fruits; and I ceased not to continue in this state for many days and nights.

Thus I remained until I walked, one day, upon the shore of the island, and there appeared unto me an indistinct object in the distance. I imagined that it was a wild beast, or one of the beasts of the sea; and I walked toward it, ceasing not to gaze at it; and, lo, it was a mare, of superb appearance picketed in a part of the island by the seashore. I approached her; but she cried out against me with a great cry, and I trembled with fear of her, and was about to return, when, behold, a man came forth beneath the earth, and he called to me and pursued me, saying to me, "who art thou, and whence hast thou come, and what is the cause of thine arrival in this place?" So I answered him, "O my master, know that I am a stranger, and I was in a ship, and was submerged in the sea with certain others of the passengers; but God supplied me with a wooden bowl, and I got into it, and it bore me along until the waves cast me upon this island." And when he heard my words, he laid hold of my hand, and said to me, "Come with me." I therefore went with him, and he descended with me into a grotto beneath the earth, and conducted me into a large subterranean chamber, and, having seated me at the upper end of the chamber, brought me some food. I was hungry; so I ate until I was satiated and contented, and my soul became at ease. Then he asked me respecting my case, and what had happened to me wherefore I acquainted him with my whole affair from beginning to end, and he wondered at my story.

And when I had finished my tale, I said, "I have acquainted thee with the truth of my case, and of what hath happened to me, and I desire of thee that thou inform me who thou art, and what is the cause of thy dwelling in this chamber that is beneath the earth." So he replied: "Know that we are a party dispersed in this island, upon its shores, and we are the grooms of the King Mihrage, having under our care all his horses. I will take thee with me to the King Mihrage, and divert thee with the sight of our country." And shortly after his companions came. They drew near to me and spread the table and ate, and invited me; so I ate with them, after which they arose and mounted the horses, taking me with them, having mounted me on a mare.

We commenced our journey, and proceeded without ceasing, until we arrived in the city of the King Mihrage, and they went in to him, and acquainted him with my story. He therefore desired my presence, and they took me in to him, and stationed me before him; whereupon I saluted him, and he returned my salutation and welcomed me, greeting me in an honorable manner, and inquired of me respecting my case. So I informed him of all that had happened to me, and of all that I had seen from beginning to end. Then he treated me with beneficence and honor, caused me to draw near to him, and began to cheer me with conversation and courtesy; and he made me his superintendent of the seaport, and registrar of every vessel that came to the coast. . . . I ceased not to remain in his service for a long time; and whenever I went to the shore, I used to inquire of the merchants and travelers and sailors respecting the direction of the city of Bagdad, that perchance some one might inform me of it, and I might go with him thither and return to my country; but none knew it. At this I was perplexed, and I was weary of the length of my absence from home.

I stood one day upon the shore of the sea, with a staff in my hand, as was my custom, and lo, a great vessel approached, wherein were many merchants; and when it arrived at the harbor of the city and its place of anchoring, the master furled its sails, brought it to an anchor by the shore, and put forth the landing plank; and the sailors brought out everything that was in the vessel to the shore. They were slow in taking forth the goods, while I stood writing their account, and I said to the master of the ship, "Doth aught remain in thy vessel?" He answered, "Yes, O my master; I have some goods in the hold of the ship, but their owner was drowned in the sea at one of the islands during our voyage hither, and his goods are in our charge; so we desire to sell them, and to take a note of their price, in order to convey it to his family in the city of Bagdad, the Abode of Peace." I therefore said to the master, "What was the name of that man, the owner of the goods?" He answered, "His name was Sinbad the Sailor, and he was drowned on his voyage with us in the sea." And when I heard his words, I looked at him with a scrutinizing eye, and recognized him; and I cried out at him with a great cry, and said: "O master, know that I am the owner of the goods which thou hast mentioned, and I am Sinbad the Sailor, who descended upon the island from the ship, with the other merchants who descended. Therefore these goods that thou hast are my goods and my portion."

But the master said: "Because thou heardest me say that I had goods whose owner was drowned, therefore thou desirest to take them without price; and this is unlawful to thee; for we saw him when he sank, and there were with him many of the passengers, not one of whom escaped. How, then, dost thou pretend that thou art the owner of the goods?"

So I said to him: "O master, hear my story, and understand my words, and my veracity will become manifest to thee; for falsehood is a characteristic of the hypocrites." Then I related to him all that I had done from the time I went forth with him from the city of Bagdad until we arrived at that island upon which we were submerged in the sea, and I mentioned to him some circumstances that occurred between me and him. Upon this, therefore, the master and the merchants were convinced of my veracity, and recognized me, and they congratulated me on my safety. Then they gave me the goods and I found my name written upon them, and naught of them were missing. So I opened them, and took forth from them something precious and costly; the sailors of the ship carried it with me, and I went up to the King to offer it as a present, and informed him that this ship was the one in which I was a passenger. And the King wondered extremely; my veracity in all that I had said became manifest to him, and he loved me greatly, and treated me with exceeding honor, giving me a large present.

Then I sold my bales, as well as the other goods that I had, and gained upon them abundantly. And when the merchants of the ship desired to set forth on their voyage, I stowed all that I had in the vessel, and, going in to the King, thanked him for his beneficence and kindness; after which I begged him to grant me permission to depart on my voyage to my country and my family. So he bade me farewell, and gave me an abundance of things at my departure of the commodities of that city; and when I had taken leave of him, I embarked in the ship. We ceased not to prosecute our voyage night and day until we arrived in safety at the city of Balsora. There we landed, and remained a short time, and I rejoiced at my safety and my return to my native country; and after that I repaired to the city of Bagdad, the Abode of Peace.

—*Arabian Nights.*

HISTORY STORIES.

THE BOSTON TEA PARTY

Many years ago when this country was still a colony of England, the same as Canada is today, there occurred a very peculiar tea party which was held in the harbor of the city of Boston.

In those days there was a great deal of discontent in this country because the English insisted on placing taxes on products that were used by the American colonists and would not allow the colonists to send any representative to the English parliament. This was what was termed "taxation without representation." There was so much complaint on the part of the colonists that the English feared there would be a rebellion and thinking to soothe them they took off the tax on everything except tea. This was simply to let the colonists know that they still held the power to tax them.

It was just this point that made the colonists angry. They did not object so much to paying the tax as they did to the idea of taxation. They refused to use the tea. In some places it was stored in damp cellars where it was damaged; in other places it was returned, the shipment not being allowed to land; but in Boston they handled the matter differently and that is what our story is about.

One day it became noised about that a large shipload of tea was entering the harbor. A meeting was called in Faneuil Hall where there were many lively speeches and the people decided they would never allow the tea to be brought ashore. Toward evening, as the vessel was seen slowly nearing the wharf there was no indication that anything unusual might happen, but just as they were about to tie the ship up there was a sudden warwhoop and a band of Indians, running and yelling and waving their tomahawks, boarded the vessel. They swarmed all over the deck, went down into the hold and brought out the chests of tea, and with a great deal of whooping dumped the tea overboard into the harbor. After the chests were all emptied the Indians suddenly grew quiet, and as they came from the deck stood about in an ordinary way on the wharf. It was then to be seen these men were not Indians at all, but only the men of Boston in disguise.

On their way home it is reported they passed the house where Admiral Montague was spending the evening. As the band filed past he raised the window and shouted, "Well, boys, you have had a fine night for your Indian capers, but remember you have got to pay the fiddler yet." One of the leaders replied, "Never mind, squire, just come out here now and we will settle the bill inside of a minute." The admiral was willing to let the bill stand and quickly shut the window.

Such was one of the important events that happened previous to the American Revolution. A little over two years later the colonists signed what is known as the "Declaration of Independence," which, followed up by the Revolutionary War, resulted in the United States becoming a free and independent nation.

THE CAPTURE OF THE HESSIANS

During the early part of the Revolutionary War matters had been going from bad to worse. Washington's army had met with defeat, was very poorly equipped, and suffered greatly from cold and hunger. Washington felt that something must be done to encourage his men, otherwise they would become discouraged with the cold weather so close at hand.

At Trenton just across the Delaware from where Washington's troops were camping, there was a body of Hessian troops, hired by the English to fight against the colonists. Washington knew that these Hessians were very likely to spend Christmas Eve in a great celebration and would not be looking for an attack, so he determined to cross the river and attack the Hessians on Christmas Day.

The night before was a cold and rainy night and the river was full of broken ice. In the darkness it seemed almost impossible to cross, but Washington and his soldiers were used to hardships and did not let such obstacles stop them.

At four o'clock in the morning the last boatload of men was landed on the opposite shore. They crept noiselessly along the bank and suddenly burst upon the unwary enemy who were sound asleep after their revelry. The Hessians were captured almost before they could open their eyes. Washington lost but ten men and captured almost 1,000 of the Hessians, besides large quantities of supplies. The Hessians were sent into central Pennsylvania where they were kept as prisoners among the German settlers who treated them very kindly.

General Cornwallis, when he heard of this surprise, determined he would not allow Washington and his army to go without punishment. "Just show me this Washington's camp," said the general, "and we will take it in the morning."

Washington knew that there was danger of an attack from Cornwallis, so, like the good soldier he was, he decided he would not allow his army to be attacked. Taking the lead himself they set out in the blackness of the night over the snow to attack the British forces at Princeton. The British were so surprised that they were routed, and, by the time Cornwallis awoke, Washington had retreated with 200 of the British captured.

These two victories were a great encouragement to the colonists at this time when everything looked so dark, and as a result the army and the people were very proud of General Washington.

BENEDICT ARNOLD

In all history there is no character that is more contemptible, nor one for whom we have less respect, than the man who will betray his trust or his country.

In the history of the United States we have one conspicuous example of a man who turned traitor. This man, as everybody knows, is Benedict Arnold. Benedict Arnold was one of the most daring men during the early years of the Revolution. He was brave and brilliant, but possessed the ignoble qualities of being jealous and treacherous. Due, however, to some difference of opinion between himself and General Washington, he began to plot against his superiors and against his country.

On account of Arnold's brilliant victories and military skill he was given command of one of the best points held by the Americans, namely, West Point. It seems that before he was given this point he had already begun to plot its surrender into the hands of the British, their commander being Sir Henry Clinton. The British offered him 10,000 pounds in British gold for the surrender of this fortress. To perfect the plans for the carrying out of the deed, Major André was sent to West Point to visit Arnold and make definite arrangements. He reached the American line, received the papers from Arnold in which the plans for the fort and capture of it were written, and, putting these in his stockings, started back of the British line.

He had just passed the American line at West Point and had reached Tarrytown on his way to New York, when he was stopped by three Americans. He asked them where they belonged and they replied, "down below." André, thinking they were friends, told them he was a British officer on important business and asked to be allowed to pass. This, however, was just the information they were after, so they told him he was their prisoner. André produced his pass and offered bribes of his watch, purse, and other gifts if they would allow him to pass. They, however, began to search him for any papers which he might be carrying. At last they found what they were looking for in his stockings, so, taking the papers and the prisoner, they went to the American camp.

André, being a true soldier and wishing, of course, to protect Arnold as much

as possible, asked permission to send word to him. This he did, informing him of his capture and the failure of the plans. Upon receipt of this message Arnold left the fort and escaped to the British line and put himself under the British General Clinton. André was sentenced to be hanged as a spy. He asked the privilege of being shot instead, but this privilege was not granted him, chiefly because prior to this time the British had executed by hanging the American spy, Nathan Hale.

Arnold for the remainder of this war fought on the English side and at its close went to reside in England. He, however, did not have the respect of the English, as they feared he was likely to be a traitor to them as he had been to the Americans. He might truly be said to be a man without a country. His condition is vividly described by Edward Everett Hale in the story entitled "The Man Without a Country."

A LETTER BY CHRISTOPHER COLUMBUS.

Knowing that it will afford you pleasure to learn that I have brought my undertaking to a successful termination, I have decided upon writing you this letter to acquaint you with all the events which have occurred in my voyage, and the discoveries which have resulted from it. Thirty-three days after my departure from Cadiz I reached the Indian sea, where I discovered many islands, thickly peopled, of which I took possession without resistance in the name of our most illustrious Monarchs, by public proclamation and with unfurled banners. To the first of these islands, which is called by the Indians Guanahani, I gave the name of the blessed Savior (San Salvador), relying upon whose protection I had reached this as well as the other islands.

As soon as we arrived at that, which as I have said was named Juana, I proceeded along its coast a short distance westward, and found it to be so large and apparently without termination, that I could not suppose it to be an island, but the continental province of Cathay.

In the meantime I had learned from some Indians whom I had seized, that country was certainly an island; and therefore I sailed toward the east, coasting to the distance of three hundred and twenty-two miles, which brought us to the extremity of it; from this point I saw lying eastwards another island, fifty-four miles distant from Juana, to which I gave the name Española.

All these islands are very beautiful, and distinguished by a diversity of scenery; they are filled with a great variety of trees of immense height, and which I believe to retain their foliage in all seasons; for when I saw them they were as verdant and luxurious as they usually are in Spain in the month of May,—some of them were blossoming, some bearing fruit, and all flourishing in the greatest perfection, according to their respective stages of growth, and the nature and quality of each; yet the islands are not so thickly wooded as to be impassable. The nightingale and various birds were singing in countless numbers, and that in November, the month in which I arrived there.

The inhabitants are very simple and honest, and exceedingly liberal with all they have; none of them refusing anything he may possess when he is asked for it, but on the contrary inviting us to ask them. They exhibit great love toward all others in preference to themselves: they also give objects of great value for trifles, and content themselves with very little or nothing in return. I, however, forbade that these trifles and articles of no value (such as pieces of dishes, plates, and glass, keys, and leather straps) should be given to them, although, if they could obtain them, they imagined themselves to be possessed of the most beautiful trinkets in the world. It even happened that a sailor received for a leather strap as much gold as was worth three golden nobles, and for things of more trifling value offered by our men, especially newly coined blancas, or any gold coins, the Indians would give whatever the seller required.

On my arrival I had taken some Indians by force from the first island that I came to, in order that they might learn our language. These men are still traveling with me, and although they have been with us now a long time, they continue to entertain the idea that I have descended from heaven; and on our arrival at any new place they published this, crying out immediately with a loud voice to the other Indians, "Come, come and look upon beings of a celestial race": upon which both men and women, children and adults, young men and old, when they got rid of the fear they at first entertained, would come out in throngs, crowding the roads to see us, some bringing food, others drink, with astonishing affection and kindness.

Although all I have related may appear to be wonderful and unheard of, yet the results of my voyage would have been more astonishing if I had had at my disposal such ships as I required. But these great and marvelous results are not to be attributed to any merit of mine, but to the holy Christian faith, and to the piety and religion of our Sovereigns; for that which the unaided intellect of man could not compass, the spirit of God has granted to human exertions, for God is wont to hear the prayers of his servants who love his precepts even to the performance of apparent impossibilities.

Thus it has happened to me in the present instance, who have accomplished a task to which the powers of mortal men had never hitherto attained; for if there have been those who have anywhere written or spoken of these islands, they have done so with doubts and conjectures, and no one has ever asserted that he has seen them, on which account their writings have been looked upon as little else than fables. Therefore let the king and queen, our princes and their most happy kingdoms, and all other provinces of Christendom, render thanks to our Lord and Savior Jesus Christ, who has granted us so great a victory and such prosperity.

EXPLORING THE COLUMBIA RIVER.

While various companies were pushing their enterprises far and wide in the wilds of Canada, and along the course of the great western waters, other adventurers, intent on the same objects, were traversing the watery wastes of the Pacific and skirting the northwest coast of America. The last voyage of that renowned but unfortunate discoverer, Captain Cook, had made known the vast quantities of the sea otter to be found along that coast, and the immense prices to be obtained for its fur in China. It was as if a new gold coast had been discovered. Individuals from various countries dashed into this lucrative traffic, so that in the year 1792 there were twenty-one vessels under different flags, plying along the coast and trading with the natives. The greater part of them were American, and owned by Boston merchants.

Among the American ships which traded along the northwest coast in 1792, was the *Columbia*, Captain Gray, of Boston. In the course of her voyage she discovered the mouth of a large river in lat. $46^{\circ} 19'$ north. Entering it with some difficulty, on account of sand bars and breakers, she came to anchor in a spacious bay. A boat was well manned, and sent on shore to a village on the beach, but all the inhabitants fled excepting the aged and infirm. The kind manner in which these were treated, and the presents given to them, gradually lured back the others, and a friendly intercourse took place. They had never seen a ship or a white man. When they had first descried the *Columbia*, they had supposed it a floating island; then some monster of the deep; but when they saw the boat putting for shore with human beings on board, they considered them cannibals sent by the Great Spirit to ravage the country and devour the inhabitants.

Captain Gray did not ascend the river farther than the bay, which continues to bear his name. After putting to sea he fell in with the celebrated discoverer, Van-

couver, and informed him of his discovery, furnishing him with a chart which he had made of the river. Vancouver visited the river, and his lieutenant explored it by the aid of Captain Gray's chart; ascending it upward of one hundred miles, until within view of a snowy mountain, to which he gave the name of Mount Hood, which it still retains.

The existence of this river, however, was known long before the visits of Gray and Vancouver, but the information concerning it was vague and indefinite, being gathered from the reports of the Indians. It was spoken of by travelers as the Oregon, and as the great river of the West. A Spanish ship is said to have been wrecked at the mouth, several of the crew of which lived for some time among the natives. The *Columbia*, however, is believed to be the first ship that made a regular discovery and anchored within its waters, and it has since generally borne the name of that vessel.

In the meantime the attention of the American government was attracted to the northwest, and the memorable expedition under Messrs. Lewis and Clarke fitted out. These gentlemen, in 1804, accomplished the enterprise which had been projected. They ascended the Missouri, passed through the stupendous gates of the Rocky Mountains, hitherto unknown to white men; discovered and explored the upper waters of the Columbia, and followed that river down to its mouth, where their countryman, Gray, had anchored about twelve years previously.

Here they passed the winter, and returned across the mountains in the following spring. The reports published by them of their expedition demonstrated the practicability of establishing a line of communication across the continent, from the Atlantic to the Pacific Ocean.

It was then that the idea presented itself to the mind of Mr. Astor, of grasping with his individual hand this great enterprise, which for years had been dubiously yet desirously contemplated by powerful associations and maternal governments. For some time he revolved the idea in his mind, gradually extending and maturing his plans as his means of executing them augmented.

The main feature of his scheme was to establish a line of trading posts along the Missouri and the Columbia, to the mouth of the latter, where was to be founded the chief trading house or mart. Inferior posts would be established in the interior, and on all the tributary streams of the Columbia, to trade with the Indians; these posts would draw their supplies from the main establishment, and bring to it the peltries they collected.

Coasting craft would be built and fitted out, also, at the mouth of the Columbia, to trade at favorable seasons, all along the northwest coast, and return, with the proceeds of their voyages, to this place of deposit. Thus all the Indian trade, both of the interior and the coast, would converge to this point, and thence derive its sustenance. A ship was to be sent annually from New York to this main establishment with reënforcements and supplies, and with merchandise suited to the trade. It would take on board the furs collected during the preceding year, carry them to Canton, invest the proceeds in the rich merchandise of China, and return thus freighted to New York.

Such is the brief outline of the enterprise projected by Mr. John Jacob Astor, but which continually expanded in his mind. Indeed, it is due to him to say that he was not actuated by mere motives of individual profit. He was already wealthy beyond the ordinary desires of man, but he now aspired to that honorable fame which is awarded to men of similar scope of mind, who by their great commercial enterprises have enriched nations, peopled wildernesses, and extended the bounds of empire.

He considered his projected establishment at the mouth of the Columbia as the emporium of an immense commerce; as a colony that would form the germ of a wide civilization; that would, in fact, carry the American population across the Rocky

Mountains and spread it along the shores of the Pacific, as it already animated the shores of the Atlantic.

Mr. Astor now prepared to carry his scheme into prompt execution. He had some competition, however, to apprehend and guard against. The Northwest Company had pushed one or two advanced trading posts across the Rocky Mountains. To prevent any contest with that company, therefore, he made known his plan to its agents, and proposed to interest them, to the extent of one third, in the trade thus to be opened.

Some correspondence and negotiation ensued. The company were aware of the advantages which would be possessed by Mr. Astor should he be able to carry his scheme into effect; but they anticipated a monopoly of the trade beyond the mountains, and were loath to share it with an individual who had already proved a formidable competitor in the Atlantic trade. They hoped, too, by a timely move, to secure the mouth of the Columbia before Mr. Astor would be able to put his plans into operation; and, that key to the internal trade once in their possession, the whole country would be at their command. After some negotiation and delay, therefore, they declined the proposition that had been made to them, but subsequently dispatched a party for the mouth of the Columbia, to establish a post there before any expedition sent out by Mr. Astor might arrive.

In the meantime Mr. Astor, finding his overtures rejected, proceeded fearlessly to execute his enterprise in face of the whole power of the Northwest Company. His main establishment once planted at the mouth of the Columbia, he looked with confidence to ultimate success. Being able to reënforce and supply it amply by sea, he would push his interior posts in every direction up the rivers, and along the coast; supplying the natives at a lower rate, and thus gradually obliging the Northwest Company to give up the competition, and retire to the other side of the mountains. He would then have possession of the trade, not merely of the Columbia and its tributaries, but of the regions farther north, quite to the Russian possessions. Such was a part of his brilliant and comprehensive plan.

From "Astoria," by Washington Irving.

MISCELLANEOUS STORIES.

DAVID AND GOLIATH.

In the days of Saul, the king, the Philistines came to fight against the Israelites. They pitched their tents upon the side of a high mountain and the Israelites pitched their tents on the mountain across the valley.

The leader of the Philistines was a giant named Goliath. He was taller than any man the Israelites had ever seen. He wore a thick armor of brass and bore a sword and spear, and a shield so heavy that no other man could lift it from the ground. This giant would go out each day toward the Israelites and cry, "Why do you fight against us? Choose a man from among you and let him kill me if he can." The Israelites trembled when they heard the giant's voice, and no man dared to go out and meet him.

While this was going on, David was watching his father's sheep. One day his father said to him, "Leave thy sheep today, and see how it fares with thy brothers. Carry to them this corn and barley and to their leader take these ten cheeses."

David hurried away and soon came to where the army lay. As he drew near he heard a great shouting for the Israelites were about to go into battle. Just at this time Goliath again came out and shouted, "Why do you fight against us? Send out one man from among you and let him kill me if he can." At this all the Israelites

were afraid and drew back. "Who is this Philistine who can frighten the Israelites, the chosen people of God?" David cried.

When David's brothers heard what David said, they were angry and said, "What know you of battle? You are but a tender of sheep." However, someone told Saul what David had said and as Saul was ready for any assistance that would offer itself, asked to have David brought into his presence. When David came to Saul he said, "Fear not this Philistine, I, myself, will go out and fight him." But Saul said to him, "Thou art but a mere boy. Thou art not used to battle and this giant is armed with sword and spear." But David replied, "It is true I know little of battle and am not used to sword and spear, but I am not weak. One day a lion and bear came to my flock and I took away the lamb and slew the lion and bear, for it was God who gave me the power and so will he help me slay this giant." Saul said, "Go, and may the Lord be with thee." Then Saul took his own sword and spear and gave them to David, but David would not take them. "I know not how to use them," he said, and he put them off from him.

Then David taking his sling chose five smooth stones from the brook, put them in his shepherd's bag, and went out to meet Goliath. When Goliath saw David he laughed heartily and said, "Hast thou come out to kill me? Come, let me give thy body to the birds for food." But David was not frightened. He called back to the giant and said, "Thou come'st to me with sword and spear, but I come to you in the name of the God of Israel. He will give me power to conquer and slay thee and He will give thee into my hands." With these words David ran out to meet Goliath. He put a stone in the sling and shot at the giant. It hit the giant in the forehead so he fell to the ground stunned.

Then David ran and took the giant's sword and cut off his head and held it up before the people. The Philistines were seized with terror when they saw their leader was fallen, and turned and fled, and the Israelites, greatly rejoicing, followed them through the forests and across the plains, slaying many. Then Saul took the head of Goliath to Jerusalem and there was a great feast held in honor of the victory.

JOSEPH AND HIS BRETHREN.

Jacob had twelve sons, but the one among them whom he loved the most was Joseph. The older sons were jealous because Jacob seemed to favor Joseph more than he did them.

Jacob had given Joseph a coat of many colors and because of this and because of their father's favor to Joseph the elder brothers decided to kill the boy.

One night Joseph had a vision. He dreamed that eleven stars came before him and bowed themselves to the ground, and a voice said, "So shall thy brethren bow before thee." Joseph unfortunately told this dream to his brothers and this made them more angry than usual.

One day Jacob sent Joseph to his brothers who were out in the mountains tending their sheep many miles from home. As the brothers saw Joseph they said among themselves, "Here comes our dreamer. He is the one that is to reign over us." Then the oldest brothers said, "Let us kill him and cast him into a pit." But Reuben, not wishing to be guilty of the death of his brother, urged that they cast him into the pit and tell his father that the wild beasts had slain him. So they took Joseph and cast him into a pit and, killing a kid, dipped the coat in the kid's blood and took it back to Jacob. Just before going back a company of traders who were on their way to Egypt came by and, thinking in this way to dispose of Joseph, they drew him out of the pit and sold him to the traders, who took him to Egypt as a slave.

Jacob was much grieved at the supposed death of his son, but the brothers did not care for his grief and thought they were well rid of the brother of whom they were so jealous.

Joseph was carried into Egypt and sold again to a man named Potiphar. Potiphar was proud of his new slave and Joseph dwelt happily in his new home for a time. But Potiphar's wife was an evil woman and as Joseph would not do evil, as she desired, she had him thrown into prison and told Potiphar lies about the boy.

While he was in prison he found some of the servants of King Pharaoh. One of them was a cup-bearer and another a baker. One morning Joseph noticed that these men were very sad and he said to them, "Why are you so sad?"

"It is because we have dreamed dreams and we do not know the meaning of them."

"It is God who sends dreams," said Joseph. Tell them to me and maybe I can interpret them for you."

Then the cup-bearer related his dream: "I saw in my dream a vine. On the vine were three branches. They budded and flowers came and fruit ripened. Then I took Pharaoh's cup and gathered the juice of the grapes and gave it to Pharaoh."

"Have courage," said Joseph. "That is a good dream. Three branches are three days. The dream means that in three days Pharaoh will liberate you and you will deliver the cup into his hands; but do not forget me when you are delivered from bondage as I have been sold into bondage and stolen away from Canaan and I do not deserve to be in this prison. Speak to Pharaoh and beg him to free me."

Then the baker told his dream: "In my dream I had three baskets of baked meat on my head. They were for Pharaoh but the birds came and ate the meat out of the baskets."

"Alas!" said Joseph, "the meaning of your dream is this: In three days Pharaoh shall hang you upon a tree and the birds shall come and eat you."

This dream came true, as Joseph had foretold, and the other servant went back to Pharaoh's house. But he forgot Joseph and for two years Joseph was in prison.

After two years Pharaoh himself had two strange dreams and none of his wise men were able to tell him the meaning of them. Then it was the cup-bearer remembered what Joseph had done for him in prison and told Pharaoh of Joseph. Then Pharaoh had Joseph brought before him and told him his dreams.

"I dreamed," said Pharaoh, "that I stood beside the river. Seven fat cattle came out of it and fed in the meadow. Soon seven more came out, thin and poor. Then the seven lean cattle ate up the seven fat cattle. Then I woke and when I slept again I dreamed that seven good ears of corn came out upon one stem, and soon after seven more thin and bad, and the seven bad ears ate up the seven good ears."

"Then," said Joseph to the king, "the meaning of these dreams is this. There shall be seven years of great fruitfulness in the land, then shall come seven years of famine and the seven years of famine shall eat up the fruitfulness of the first seven years. Now let King Pharaoh take warning. Let him gather up all the corn in these first seven years, then when the years of famine come there will be corn for all who dwell in the land."

Pharaoh was much pleased with the wisdom of Joseph and to repay him appointed him in charge of gathering the corn and made him one of the rulers over the people of Egypt. There were seven years of great plenty followed by seven years of famine, but during the seven years of plenty Joseph had gathered great storehouses full of corn.

When the famine came over the land of Egypt there was also a famine in Canaan where the brothers of Joseph still lived. They heard there was corn in Egypt and decided to go into the land to buy. As Joseph was in charge of all the storehouses they were obliged to come before him in order to buy the corn.

"Who are you?" inquired Joseph, for he wished to see if they would speak the truth. They of course did not remember him, but he remembered them.

"We are the sons of Jacob," they said, "and we come from the land of Canaan."

"Have you any other brothers?" asked Joseph.

"We have one younger brother at home. His name is Benjamin."

"How do I know that you are speaking the truth? I will give you corn if you will return home and bring me your youngest brother. In the meantime I will hold one of you prisoner here until you return."

So the nine brothers went back to Canaan and told Jacob what had happened, but they did not know it was Joseph they had seen. Jacob was much grieved when he heard what had been done and that Simeon had been kept a prisoner in Egypt, and he said, "Never will I let Benjamin go. Joseph is lost and now Simeon and what if anything should happen to Benjamin!"

By and by, the corn was all eaten and as there was no more food in Canaan they were obliged to go back to Egypt, but the brothers would not go back without Benjamin as they knew they would not get any corn unless they took him. When Joseph saw them coming he was very glad to see his brother Benjamin with them so he bade his servants prepare a feast for the ten men. Simeon was freed and they were very happy. They all came and bowed before Joseph as the dream prophesied they would. Joseph asked about his father and they answered that he was well.

The next day they all set off for Canaan, having purchased a quantity of corn, but when they were departing Joseph said to his servant, "Put my silver cup in the sack of the youngest and when they are well out on the road overtake them and bring back to me the one in whose sack you find the cup." The servant did as he was told and the brothers were much astonished and ashamed to have the cup found in Benjamin's sack. As they came back they begged Joseph not to keep Benjamin for they feared their father would die of grief if this were done. Then Joseph said to them, "Weep not. Do you not know me? I am your brother Joseph whom you did sell into bondage." Then all wept and fell on their faces before Joseph. Then Joseph directed that they go back to Canaan and take with them other wagons and horses to bring their father down into Egypt.

The father and all the sons with their flocks and herds and families came down into Egypt and lived in the land of Goshen. For many years they were happy while Joseph was the ruler of the people. After seventeen years Jacob died and was carried back to Canaan and buried.

SILAS MARNER AND THE BABY.

By the time Eppie was three years old, she developed a fine capacity for mischief, and for devising ingenious ways of being troublesome, which found much exercise, not only for Silas' patience, but for his watchfulness and penetration.

Sorely was poor Silas puzzled on such occasions by the incompatible demands of love. Dolly Winthrop told him punishment was good for Eppie, and that, as for rearing a child without making it tingle a little now and then,—it was not to be done.

"To be sure, there's another thing you might do, Master Marner," added Dolly, meditatively: "you might shut her up once in the coal-hole. That was what I did with Aaron; for I was so silly with the youngest lad I could never bear to smack him. Not that I could find it in my heart to let him stay in the coal-hole more than a minute, but it was enough to colly him all over, so that he must be new washed and dressed, and it was as good as a rod to him—that was. But I put it upon your conscience, Master Marner, there's one you must chose—either smacking or the coal-hole—else she'll get so masterful, there'll be no holding her."

Silas was impressed with the melancholy truth of this last remark; but the force of his mind failed before the only two methods open to him; not only because it was painful to hurt Eppie, but because he trembled at a moment's contention with her, lest she should love him the less for it.

Let even an affectionate Goliath get himself tied to a small tender thing, dreading to hurt it by pulling, and dreading still more to snap the cord, and which of the

two, pray, will be master? It was clear that Eppie, with her short toddling steps, must lead father Silas a pretty dance on any fine morning when circumstances favored mischief.

For example. He had wisely chosen a broad strip of linen as a means of fastening her to his loom when he was busy: it made a broad belt round her waist, and was long enough to allow of her reaching the truckle-bed and sitting down on it, but not long enough for her to attempt any dangerous climbing.

One bright summer's morning Silas had been more engrossed than usual in "setting up" a new piece of work, an occasion on which his scissors were in requisition. These scissors, owing to an especial warning of Dolly's had been carefully kept out of Eppie's reach; but the click of them had had a peculiar attraction for her ear, and, watching the results of that click, she had derived the philosophic lesson that the same cause would produce the same effect.

Silas had seated himself in his loom, and the noise of the weaving had begun; but he had left his scissors on a ledge which Eppie's arm was long enough to reach; and now, like a small mouse, watching her opportunity, she stole quietly from her corner, secured the scissors, and toddled to the bed again, setting up her back as a mode of concealing the fact.

She had no distinct intention as to the use of the scissors; and having cut the linen strip in a jagged but effectual manner, in two moments she had run out at the open door where the sunshine was inviting her, while poor Silas believed her to be a better child than usual. It was not until he happened to need his scissors that the terrible fact burst upon him; Eppie had run out by herself—had perhaps fallen into the Stone-pit.

Silas, shaken by the worst fear that could have befallen him, rushed out, calling "Eppie!" and ran eagerly about the uninclosed space, exploring the dry cavities into which she might have fallen, and then gazing with questioning dread at the smooth red surface of the water. The cold drops stood on his brow. How long had she been out?—There was one hope—that she had crept through the stile and got into the fields where he habitually took her to stroll.

But the grass was high in the meadow, and there was no descrying her, if she were there, except by a search that would be a trespass on Mr. Osgood's crop. Still, that misdemeanor must be committed; and poor Silas, after peering all round the hedgerows, traversed the grass, beginning with perturbed vision to see Eppie behind every group of red sorrel, and to see her moving always farther off as he approached.

The meadow was searched in vain; and he got over the stile into the next field, looking with dying hope towards a small pond which was now reduced to its summer shallowness, so as to leave a wide margin of good adhesive mud.

Here, however, sat Eppie, discoursing cheerfully to her own small boot, which she was using as a bucket to convey the water into a deep hoof-mark, while her little naked foot was planted comfortably on a cushion of olive-green mud. A red-headed calf was observing her with alarmed doubt through the opposite hedge.

Here was clearly a case of aberration in a christened child which demanded severe treatment; but Silas, overcome with convulsive joy at finding his treasure again, could do nothing but snatch her up and cover her with half-sobbing kisses. It was not till he had carried her home, and had begun to think of the necessary washing, that he recollected the need that he should punish Eppie, "and make her remember."

"Naughty, naughty Eppie!" he suddenly began, holding her on his knee, and pointing to her muddy feet and clothes—"naughty to cut with the scissors, and run away. Eppie must go in the coal-hole for being naughty. Daddy must put her in the coal-hole."

He half expected that this would be shock enough, and that Eppie would begin to cry. But instead of that, she began to shake herself on his knee, as if the proposition opened a pleasing novelty.

Seeing that he must proceed to extremities he put her into the coal-hole, and held the door closed, with a trembling sense that he was using a strong measure.

For a moment there was silence, but then came a little cry, "Opy, opy!" and Silas let her out again, saying, "Now Eppie'll never be naughty again, else she must go in the coal-hole—a black naughty place."

The weaving must stand still a long while this morning, for now Eppie must be washed and have clean clothes on; but it was to be hoped that this punishment would have a lasting effect, and save time in future—though perhaps it would have been better if Eppie had cried more.

In half an hour she was clean again; and Silas, having turned his back to see what he could do with the linen band, threw it down again with the reflection that Eppie would be good without fastening her for the rest of the morning.

He turned round again, and was going to place her in her little chair near the loom, when she peeped out at him with black face and hands again, and said, "Eppie in de toal-hole!"

—George Eliot.

MR. WINKLE ON SKATES.

"Now," said Wardle, after lunch, "what say you to an hour on the ice? We shall have plenty of time."

"Capital!" said Mr. Benjamin Allen.

"Prime!" ejaculated Mr. Bob Sawyer.

"You skate, of course, Winkle?" said Wardle.

"Ye-yes; oh yes!" replied Mr. Winkle. "I—I am *rather* out of practice."

"Oh, *do* skate, Mr. Winkle!" said Arabella. "I like to see it *so* much!"

"Oh, it is so graceful!" said another young lady.

A third young lady said it was elegant, and a fourth expressed her opinion that it was "swanlike."

"I should be very happy, I'm sure," said Mr. Winkle, reddening; "but I have no skates."

This objection was at once overruled. Trundle had a couple of pairs, and the fat boy announced that there were half a dozen more downstairs; whereat Mr. Winkle expressed exquisite delight and looked exquisitely uncomfortable.

Old Wardle led the way to a pretty large sheet of ice and the fat boy and Mr. Weller having shoveled and swept the snow which had fallen on it during the night, Mr. Bob Sawyer adjusted his skates with a dexterity which to Mr. Winkle was perfectly marvelous, and described circles with his left leg, and cut figures of eight, and inscribed upon the ice, without once stopping for breath, a great many other pleasant and astonishing devices, to the excessive satisfaction of Mr. Pickwick, Mr. Tupman, and the ladies; which reached a state of positive enthusiasm, when old Wardle and Benjamin Allen, assisted by the aforesaid Bob Sawyer, performed some mystic evolutions, which they called a reel.

All this time Mr. Winkle, with his face and hands blue with the cold, had been forcing a gimlet into the soles of his feet, and putting his skates on with the points behind, and getting the straps into a very complicated and entangled state, with the assistance of Mr. Snodgrass, who knew rather less about skates than a Hindu. At length, however, with the assistance of Mr. Weller, the unfortunate skates were firmly screwed and buckled on, and Mr. Winkle was raised to his feet.

"Now, then, sir," said Sam, in an encouraging tone, "off with you, and show 'em how to do it."

"Stop, Sam, stop!" said Mr. Winkle, trembling violently, and clutching hold of Sam's arms with the grasp of a drowning man. "How slippery it is, Sam!"

"Not an uncommon thing upon ice, sir," replied Mr. Weller. "Hold up, sir!"

This last observation of Mr. Weller's bore reference to a demonstration Mr.

Winkle made at the instant, of a frantic desire to throw his feet in the air and dash the back of his head on the ice.

"Now, Winkle," cried Mr. Pickwick, quite unconscious that there was anything the matter, "come! The ladies are all anxiety."

"Yes," replied Mr. Winkle with a ghastly smile, "I'm coming."

"Just going to begin," said Sam, endeavoring to disengage himself. "Now, sir, start off!"

"Stop an instant, Sam," gasped Mr. Winkle, clinging most affectionately to Mr. Weller. "I find I've got a couple of coats at home that I don't want, Sam; you may have them, Sam."

"Thank 'e, sir," said Mr. Weller.

"Never mind touching your hat, Sam," said Mr. Winkle, hastily. "You needn't take your hand away to do that. I meant to have given you five shillings this morning for a Christmas box, Sam; I'll give it you this afternoon, Sam."

"You're very good, sir," replied Mr. Weller.

"Just hold me at first, Sam, will you?" said Mr. Winkle. "There, that's right. I shall soon get in the way of it, Sam. Not too fast!"

Mr. Winkle, stooping forward, with his body half doubled up, was being assisted over the ice by Mr. Weller in a very singular and unswanlike manner when Mr. Pickwick most innocently shouted from the opposite bank:—

"Sam!"

"Sir?" said Mr. Weller.

"Here! I want you."

"Let go, sir," said Sam; "don't you hear the governor calling? Let go, sir!"

With a violent effort Mr. Weller disengaged himself from the grasp of the agonized Winkle, and in so doing administered a considerable impetus to him. With an accuracy which no degree of dexterity or practice could have insured, that unfortunate gentleman bore swiftly down into the center of the skaters at the very moment when Mr. Bob Sawyer was performing a flourish of unparalleled beauty.

Mr. Winkle struck wildly against him, and with a loud crash they fell heavily down. Mr. Pickwick ran to the spot. Bob Sawyer had risen to his feet, but Mr. Winkle was far too wise to do anything of the kind in skates. He was seated on the ice, making spasmodic efforts to smile; but anguish was depicted on every lineament of his countenance.

"Are you hurt?" inquired Mr. Benjamin Allen, with great anxiety.

"Not much," said Mr. Winkle, rubbing his back very hard.

"I wish you'd let me bleed you," said Mr. Benjamin, with great eagerness.

"No, thank you," said Mr. Winkle, hurriedly.

"What do *you* think, Mr. Pickwick?" inquired Bob Sawyer.

Mr. Pickwick was excited and indignant. He beckoned to Mr. Weller, and said in a stern voice, "Take his skates off!"

"No; but really I had scarcely begun," remonstrated Mr. Winkle.

"Take his skates off!" repeated Mr. Pickwick, firmly.

The command was not to be resisted. Mr. Winkle allowed Sam to obey in silence.

"Let him up," said Mr. Pickwick. Sam assisted him to rise.

Mr. Pickwick retired a few paces apart from the bystanders, and beckoning Winkle to approach, fixed a searching look upon him, and uttered, in a low but distinct and emphatic tone, these remarkable words:

"You're a humbug, sir!"

"A what?" said Mr. Winkle, starting.

"A humbug, sir; I will speak plainer if you wish it,—an imposter, sir!"

With these words Mr. Pickwick turned slowly on his heel and rejoined his friends.

—From "*Pickwick Papers*," by Charles Dickens.

WHAT TO READ

What to read to the children, or what to direct them to read, is often a perplexing question. The vast number of so-called "children's books" that are on the market makes the selection doubly difficult. Out of the vast number of such books it has been our aim to select such as have proven of value in connection with the education of the child. We do not pretend that this list contains all the good, usable books, but that it is a carefully selected list that has received the severest tests. This list has received the special approval of the *Illinois Pupil's Reading Circle Board* and these titles are contained in the best selected library and reading lists generally. We give the regular retail prices for the information of prospective purchasers. Any of these books may be obtained from any well supplied bookstore or school supply house, and they are usually on the shelves of public and school libraries.

LITERARY AND ETHICAL First and Second Grades

	Price
Circus Reader ----- Jones	\$0.36
For Childhood Days ----- Thompson	.25
Bunny Cottontail ----- Smith	.25
Bunny Boy and Grizzly Bear ----- Smith	.25
Bunny Bright Eyes ----- Smith	.25
Three Little Cottontails ----- Smith	.25
Hiawatha Primer ----- Holbrook	.40
Moufflon—Dog of Florence ----- D'La Rame	.25
Lansing's Fairy Tales -----	.35
The Wonderful Chair ----- Browne	.30
Book of Nursery Rhymes ----- Welsh	.30
Child's Garden of Verses ----- Stevenson	.40
Little Lane Prince ----- Mulock	.30
Little Goldenhood ----- Lang	.30
The Snowman ----- Lang	.35
Child Stories from the Masters ----- Menefee	.30
Sunbonnet Babies ----- Grover	.40
The Overall Boys ----- Grover	.45
Anderson's Fairy Tales I -----	.40
Anderson's Fairy Tales II -----	.40
Old World Wonder Stories ----- O'Shea	.20
So Fat and Mew Mew ----- Mulock	.20
Crib and Fly ----- Dole	.20
Rhymes and Stories ----- Lansing	.35
Little Red Hen ----- Pratt	.30
Little Folks from Many Lands ----- Chance	.45
Marjorie and Her Papa ----- Fletcher	1.00
Story of a Donkey ----- Segur	.20
The Tree Dwellers ----- Dopp	.45
The Early Cave Man ----- Dopp	.45
The Later Cave Man ----- Dopp	.45
Marjorie's Doings ----- Paull	.40
Songs of Treetop and Meadow ----- McMurray	.40
Literature Primer ----- Free and Treadwell	.32
The Three Bears ----- Pratt	.30
Boy Blue and His Friends ----- Blaisdell	.40
That's Why Stories ----- Bryce	.45
Literature First Reader ----- Free and Treadwell	.36
Fifty Famous Fables ----- McMurray	.30
In Fableland ----- Serl	.45
Cherrytree Children ----- Blaisdell	.40
Nixy Bunny in Mannerland ----- Sindelar	.40
Reynard, the Fox ----- Smythe	.30
Literature Second Reader ----- Free and Treadwell	.40
Bunny Cottontail, Jr. ----- Smith	.30

Tell Me a Story ----- McMurray	\$0.30
Short Stories for Little Folks ----- Bryce	.35
The Two Little Runaways ----- Hix	.30

LITERARY AND ETHICAL Third and Fourth Grades

King of the Golden River ----- Ruskin	.25
Seven Little Sisters ----- Andrews	.50
Robinson Crusoe ----- McMurray	.35
Classic Stories ----- McMurray	.35
Each and All ----- Andrews	.50
Grimm's Fairy Tales I ----- Pratt	.50
Legends of the Red Children ----- Pratt	.30
Stories of Indian Children ----- Pratt	.40
Fifty Famous Stories Retold ----- Baldwin	.35
Hoosier School Boy ----- Eggleston	.60
Docas, The Indian Boy ----- Shedan	.35
Bird's Christmas Carol ----- Wiggin	.50
Story of Patsy ----- Wiggin	.60
Toby Tyler; or Ten Weeks With a Circus ----- Otis	.60
Mr. Stubb's Brother ----- Otis	.60
Lolami, the Little Cliff Dweller ----- Bayliss	.50
Dog of Flanders ----- La Rame	.25
Old Indian Legends ----- Zit Za	.50
The Story Hour ----- Wiggin	1.00
Timothy's Quest ----- Wiggin	1.00
Little Polly Prentiss ----- Gould	1.00
Sweet P's ----- Lippman	1.00
A Rose of Holly Court ----- Gould	1.00
Adventures of Pinnocchio ----- Cramp	.40
Two Little Knights of Kentucky ----- Johnston	.50
The Gate of the Giant Scissors ----- Johnston	.50
The Little Colonel ----- Johnston	.50
Fairy Tales Every Child Should Know Media -----	.90
Our Little Japanese Cousin ----- Wade	.60
Shaggycoat ----- Hawkes	1.25
The Spectacle Man ----- Leonard	1.00
The Jungle Book ----- Kipling	1.50
The Second Jungle Book ----- Kipling	1.50
Little Mr. Thimblefinger Stories ----- Harris	.40
King Arthur Stories from Malory ----- Stephens	.40
A Little Shepherd of Provence ----- Stein	1.00
Fritzie ----- Daulton	1.50
The Good Wolf ----- Burnett	1.00
Joe, the Circus Boy ----- Allen	.60
Patricia ----- Elliott	1.00

	Price
The Balaster Boys -----Channing	\$1.25
On the Frontier with St. Clair-----Woods	1.50
The Roosevelt Book -----	.50
Rebecca of Sunnybrook Farm-----Wiggins	1.25
Pickett's Gap -----Greene	.50
Story of Seigfried -----Brooks	1.25
Indian Stories -----St. Nicholas	.65
Long Knives -----Eggleston	1.50
A Daughter of the Rich-----Waller	\$1.50
Lady Jane -----Jameson	1.50
Lem, A New England Boy -----Brooks	1.25
Anne of Green Gables-----Montgomery	1.50
Anne of Avonlea -----Montgomery	1.50
Kilmeny of the Orchard-----Montgomery	1.50
The Orcutt Girls -----Vaile	1.50
Sue Orcutt -----Vaile	1.50
Wilderness Dog -----Hawkes	1.50
The Young Timber-Cruisers-----Pendexter	1.50
Boy With the U. S. Survey--Rolt-Wheeler	1.50
A Texas Blue Bonnet -----Jacobs	1.50
Pioneer Boys of the Ohio-----Adams	1.25
Forest Castaways -----Bartlett	1.50
Boy with the U. S. Fisheries--Rolt-Wheeler	1.50
Piebald, King of the Bronchos----Hawkes	1.50
Katrina -----Deland	1.50

AIDS IN GEOGRAPHY AND AGRICULTURE

The Earth and Its People	
Volume IV. Europe -----Winslow	.50
Volume V. Distant Countries--Winslow	.50
Carpenter's Asia -----	.60
Carpenter's North America -----	.60
Carpenter's South America -----	.60
Carpenter's Europe -----	.70
Carpenter's Africa -----	.60
Carpenter's Australia -----	.60
Geography of Commerce and Industry	
Rocheleau	1.00
Life on the Farm -----Shepard	.50
Agriculture for Beginners-----Burkett	.75
Farm Friends and Farm Foes--Weed. Adv.	.90

AIDS TO UNITED STATES HISTORY

Pratt's American History Stories,	
The Civil War, Vol. IV-----	.50
Franklin's Autobiography -----	.40
Lincoln, the Boy and the Man-----Morgan	1.00
Roosevelt, the Boy and the Man--Morgan	1.00
Children's Life of Lincoln-----Putnam	.80
Four Great Pathfinders -----Howard	.40
Heroes of the Middle West----Catherwood	.50
The Boy General -----Custer	.50
Sidelights on American History-----Elson	.50
Scudder's Life of Washington-----	.40
Men Who Made the Nation-----Sparks	.50
The Westward Movement-----Barstow	.50
The Civil War -----Barstow	.50
The Progress of a United People--Barstow	.50
Stories of Useful Inventions-----Forman	.60
The Dawn of American History in Europe	
Nida	.80
Hero Tales of American History--Roosevelt	1.50
The Illini; A Story of the Prairie--Carr	2.00
Story of the Republic -----Putnam	1.00

LITERARY AND ETHICAL

Advanced Grade

	Price
Cadet Standish of the St. Louis---Drysedale	\$1.50
Silas Marner -----Eliot	.40
House of Seven Gables-----Hawthorne	.60
Jean Valjean -----Wiltse	.90
Seraph, the Little Violinist-----Jameson	1.50
The American Indian -----Starr	.45
Those Dale Girls -----Caruth	1.25
Treasure Island -----Stevenson	.40
Story of My Life -----Helen Keller	1.50
Two Years Before the Mast-----Dana	.60
Story of the Rhinegold-----Chapin	1.25
Betty Wales, Freshman -----Warde	1.25
Betty Wales, Sophomore -----Warde	1.25
Betty Wales, Junior -----Warde	1.25
Betty Wales, Senior -----Warde	1.25
He Knew Lincoln -----Tarbell	.60
Uncle Sam's Business -----Marlott	1.25
School Four -----Dudley	1.25
Shovelhorns -----Hawkes	1.50
The Boy with the U. S. Foresters,	
Rolt-Wheeler	1.50
Master Skylark -----Bennett	1.50
Story Girl -----Montgomery	1.50
Quest of the Four Leaf Clover-----Field	.40
Barbara's Heritage -----Hoyt	1.50
Greater America -----Paine	1.50
A Freshman Co-Ed -----Lee	1.25
Tales from Dickens -----Rives	1.50
Tom Strong, Washington's Scout---Mason	1.25
Boys of St. Timothy's -----Pier	1.50
Wilderness Castaways -----Wallace	1.25
Tales of Heroism -----Brooks	1.25

MISCELLANEOUS LIST

Panama and the Canal-----Hall & Chester	.80
Greek Heroes -----Kingsley	.30
Gulliver's Travels -----Swift	.30
The Flyaways and Other Seed Travelers	
Fultz	.55
The Story of Wool -----Bassett	.75
The Heart of a Boy-----de Amicus	.45
Starved Rock -----Osman	.50

Library of Travel, Colored Flag for Each Country, Little Journeys

Holland, Belgium and Denmark---George	.50
France and Switzerland -----George	.50
Germany -----George	.50
England and Wales -----George	.50
Russia and Austria -----George	.50
Our Western Wonderland-----Koch	.50
Little People Everywhere Series	
Kathleen in Ireland -----McDonald	.45
Betty in Canada -----McDonald	.45
Manual in Mexico -----McDonald	.45
Gerda in Sweden -----McDonald	.45
Donald in Scotland -----McDonald	.45
Marta in Holland -----McDonald	.45
Ume San in Japan -----McDonald	.45
Fritz in Germany -----McDonald	.45
Rafael in Italy -----McDonald	.45
Boris in Russia -----McDonald	.45
Hassan in Egypt -----McDonald	.45
Josefa in Spain -----McDonald	.45
Colette in France -----McDonald	.45

CLASSIFIED LIST OF BOOKS FOR THE TEACHER

FAIRY TALES

- Fairy Tales*, by Andersen. Dutton & Co., \$2.50.
Grimm's Fairy Tales. Lippincott, \$1.50.
Celtic Fairy Tales, by Jacobs. Putnam, \$1.25.
English Fairy Tales, by Jacobs. Putnam, \$1.25.
Indian Fairy Tales, by Jacobs. Putnam, \$1.25.
The Crimson Fairy Book, by Andrew Lang. Longman's, \$1.60.
Japanese Fairy Tales, by Williston. Rand, \$0.75.

STORIES FROM THE NATIONS

- Old Norse Stories*, by Bradish. American Book Co., \$0.45.
Boy Life of Napoleon, by Foa. Lothrop, \$1.25.
Stories of Beowulf, Roland, Napoleon, William Tell. Dutton Co., each, \$0.50.
In the Days of Alfred the Great, by Tappan.
In the Days of William the Conqueror, by Tappan. Lee, \$1.00.
Story of Roland, by Baldwin. Scribner, \$1.50.

HERO STORIES

- Stories of the Golden Age*, by Baldwin. Scribner, \$1.50.
Famous Leaders Among Men, by Sarah K. Bolton. Crowell, \$1.50.
Historic Boys, by Brooks. Putnam, \$1.50.
Boys' Book of Famous Rulers, by Farmer. Carroll, \$1.50.
The Boys' King Arthur, by Sidney Lanier. Scribner, \$2.00.
Red Book of Heroes, by L. B. Lang. Longman's, \$1.60.
Story of Sir Galahad, by Sterling. Dutton, \$1.50.

KINDERGARTEN STORIES

- Mother Goose Village*, by Brigham. Rand, \$1.00.
Tales of Mother Goose, by Perrault. Heath, \$0.25.
Queer Little People, by Stowe. Houghton, \$1.25.
Kindergarten Stories and Morning Talks, by Wiltse. Ginn & Co., \$0.75.
Stories for Kindergarten and Primary Schools. American Book Co., \$0.25.

NATURE STORIES

- Nature Myths*, by Cooke. Flanagan, \$0.35.
Stories Mother Nature Told Her Children, by Andrews. Ginn & Co., \$0.50.
Wings and Stings, by Daulton. Rand, \$0.40.
Legends of the Springtime, by Hoyt. Educational Publishing Co., \$0.30.
True Bird Stories, by Miller. Houghton, \$1.00.
Seed Babies, by Morley. Ginn & Co., \$0.25.
Among the Meadow People, by Pierson. Dutton, \$1.00.

CATALOGS, INDEXES, ETC.

- A Mother's List of Books for Children*, by Gertrude Weld Arnold. McClurg.
Index to Short Stories, prepared by Grace E. Salisbury and Marie E. Beckwith.
Mother Stories, by Maud Lindsay. Milton, Bradley Co., Springfield, Mass.
The Child and His Book, by Mr. E. M. Field. (An interesting history of the development of books for children.)
Graded List of Stories for Reading Aloud, by Hassler. Public Library Commission of Indiana.
List of Good Stories to Tell to Children Under Twelve Years of Age. \$0.05, post-paid. Apply to Carnegie Library of Pittsburgh.
How to Tell Stories to Children, by Bryant. Houghton, \$1.00.
When the King Came (Collection of Bible Stories). Houghton, \$1.25.

ENGLISH LITERATURE

ENGLISH LITERATURE

No subject is so vitally and perennially interesting as the study of literature. Since the world began, the romancer, the story-teller, the poet, has been the inspirer and educator not only of his contemporaries but of the generations that come after him. And this will, doubtless, always be true as long as men go to books for information, for solace, or for pleasure.

For the purpose of reading merely for relaxation or for pleasure, the world's literature will probably always be to the average reader a vast miscellaneous storehouse of songs, plays, histories, essays, novels, and epics. But for the purpose of systematic study, literature, like many other standard subjects, has of late undergone processes of analysis and classification that make it as exacting in its methods and requirements as astronomy or geometry.

The following outline of English Literature has been developed with this idea in mind. Instead of giving a general survey or history of the subject such as can be found in any good text, the principal types or forms have been selected and, by means of questions and implied answers or brief, suggestive notes, a scheme has been worked out by which the student may carry on indefinitely a systematic study of the great English masterpieces.

THE DRAMA

1. Definition and origin—that form of literature suited to performance before an audience and especially designed to portray human life. It first appeared in India and China.
2. Classification—comedy, tragedy, mask (masque).
3. The Greek Drama—its general characteristics those of tragedy and comedy. Explain the unities (action, time, place) and their origin. Note other limitations as to subject-matter and form.
 - a. Name some noted Greek writers of comedy and of tragedy and mention works of each.
 - b. Special features of some drama of each of the following authors:
Comedy—Aristophanes, Menander.
Tragedy—Aeschylus, Sophocles, Euripides.
4. The Roman Drama—its general characteristics borrowed from an imitation of the Greek. Ancient Roman drama best portrayed in the works of Seneca (tragedy) and of Terence and Plautus (comedy).
5. The Modern Drama—origin in the mystery and miracle plays of the church in many European countries. Its first themes largely religious.
6. The English Drama—due primarily to classical influence, the drama in England soon assumed a type of its own.
 - a. Mystery and miracle plays.
 - b. Moralities and interludes.
 - c. *Ralph Roister Doister*, by Nicholas Udall, the first English comedy. What are its special features?
 - d. *Gorboduc*, or *Ferrex and Porrex*, largely by Sir Thomas Sackville, the first English tragedy. What is its basis? (See SACKVILLE.)

- e. How did the group of poets immediately preceding Shakespeare determine the character of the English drama and prepare the way for this great dramatist? (Marlowe, Greene, Peele, Lyle.) General characteristics of this group. Name some works of each author. Why select these?
- f. What features characterized the work of the group following Shakespeare? Study each of these: Ben Jonson, Chapman, Beaumont and Fletcher, Massenger, Ford, Webster, Middleton, Dekker, Shirley. Why was Ben Jonson the most important writer of the group? How does his work differ in spirit and form from that of the others? From that of Shakespeare especially?
- g. The English dramas declined at the time of the Civil War and the Restoration (1650-1688). Why?
- h. Drama of Restoration mainly comedy. What of Collier's attack upon Wycherley, Congreve, Otway, etc.?
- i. What one dramatist stands out in the latter part of the Seventeenth century as a gigantic literary figure? Characterize his work.
- j. In what verse form was the tragedy of the period from 1650 to 1700 written? In what form the comedy?
- k. Why did the reform drama of Steele and Addison fail to be popular? What features marked the fine comedies later in the century by Goldsmith and Sheridan? (*See Stoops to Conquer, The School for Scandal.*)
- l. But little in the way of strong stage plays until time of Pinero and Shaw. Good closet-dramas by Coleridge, Shelley, Tennyson, Browning and others.
- m. Very late English drama is presented by Pinero, Shaw, Stephen, Phillips and Yeats. What are its features?
7. German Drama—no independent development until the latter part of the Eighteenth century.
 - a. Six comedies by the nun Roswitha, after the style of Terence, the first effort.
 - b. Mystery and miracle plays, etc., have some representation (Hans Sachs).
 - c. What difference between the drama of the first modern German dramatist and those of the Nineteenth century—Lessing, Schiller, and Goethe, Sudermann and Hauptmann?
 - d. What is considered the first national drama of Germany?
 - e. What is the best known and perhaps the greatest comedy?
 - f. As a brief study of German dramatists, note: The difference between Lessing's *Minna von Barnhelm* and Schiller's *William Tell*. What other historical plays did Schiller write?
Goethe's first plays were wildly romantic; his later plays classic in manner and spirit. Note what plays come under each head. Goethe's *Faust* the greatest work in German literature. What is the source? The theme?
Hauptmann belongs to what period? Wrote in what two different veins? Name one drama illustrating each of these lines of thought.
8. Scandinavian Drama—The greatest name not only in Scandinavian drama, but in all the Nineteenth century drama, is that of Ibsen. What was his personal attitude toward society, the government, and the church? Try to see how this is shown in his plays. Classify his dramas as (a) historical and social; (b) prose and poetry. Which play is called the Scandinavian Faust? Why is Ibsen called the Scandinavian Faust? What can you say of his influence on the modern drama?

9. French Drama.

- a. Name the three great French dramatists of the Seventeenth century, a work of each, and its characteristics.
- b. By what influence was the form of their work determined?
- c. What revival in the drama came early in the Nineteenth century?
- d. What are the great names of the drama of this time?
- e. What of Ibsen's influence on modern French dramatic literature?

A STUDY OF THE DRAMA

1. Classification: Romantic, classical, or realistic? Comedy, tragi-comedy, or tragedy?

The classical drama follows the unities of time, place, and action. The most strict classical drama limits the time to twenty-four hours and the place to one scene. This drama never introduced humor in a tragedy. The Greek and Roman dramas are examples of this class. Moliere, Racine, Ben Jonson, and Dryden also wrote classical dramas. The romantic drama is free in time and place, but must have an inherent unity of action; it mingles freely tragedy and humor. It deals much in the ideal. The realistic drama deals with life in a cold and analytical way and excludes the ideal, making no appeal to the imagination.

2. Sources. These may be historical, an older drama, a story, or human life as seen directly by the dramatist.

3. The plot should be read first for the story, a second time more critically. Is the plot well motivated; well knit; does it develop naturally and inevitably? Note carefully the exposition, complication, resolution.

The *exposition* sets forth the dramatic situation by telling some things that happen before the play opens, introducing the characters and giving their relation to each other. It gives historic background, etc. All this is usually disclosed in the first, the third, or the fourth scene.

Complication presents the dramatic conflict—a clash of interests, a plot to undermine or overthrow some one, a falling in love with an hereditary enemy, or what not.

The *resolution* is the unravelling of a plot, the untying of a knot, the righting of the wronged parties, or the punishing of a criminal, etc. It naturally forms the close of the play.

4. The *characters* may be classed as leading and subordinate, or they may be studied from other points of view. In studying a drama one should note the central character or characters and also classify the characters in groups. Those belonging to upper or lower classes of society, or those belonging primarily to the main plot and those to under-plot, or any good basis may be used for grouping. In studying this element of the drama it is well to ask if the characters are clearly drawn and well differentiated, and also if they are interesting in themselves.

5. Relation of characters to plot.

- a. Does the plot grow naturally and inevitably out of the characters?
- b. Is there a close and intimate relationship between characters and plot?

Do the characters make the plot, or do the environment and action mould the characters? (In the best drama, some such intimate relation exists. Often there is an intriguing villain, as in *Richard III* and *Othello*, who manipulates the action. Again the hesitation of such a character as Hamlet, together with his final action, shapes the progress of a play. Seek to discover the source of the main action and of the opposition or under-plot, if there be such.)

A STUDY OF SHAKESPEARE

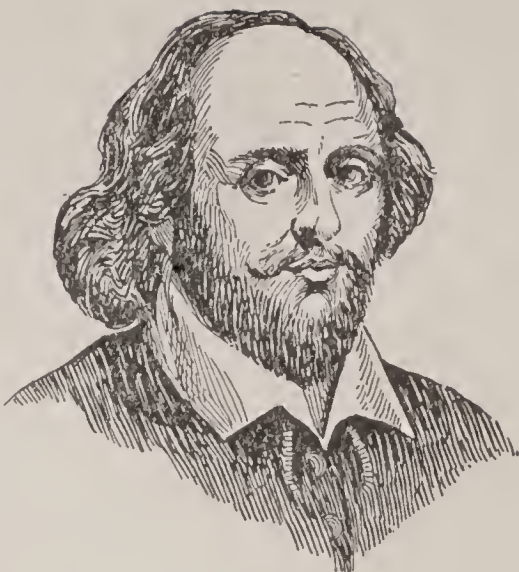
One or two typical dramas of each class and period should be studied with special care. The following, for example, may be taken, as a good method in the study of Shakespeare. Our illustrations include dramas of different kinds.

MIDSUMMER NIGHT'S DREAM

(Comedy)

A playful fantasy, a charming interweaving of three widely different strands—the hempen or homespun of the mechanic, the golden strand of the aristocrat, and the “dewey cobweb” of the fairy. We may note:

- a. The settings and the names of the leading characters are Greek, the names of the mechanics and, in general, the characters themselves, also the fairy folk lore, are English; how can you harmonize such inconsistency?
- b. Show with what skill the dramatist interweaves all the strands of his plot.
- c. What special powers and attributes have the fairies?
- d. Write a character sketch of Theseus and of Bottom.



RICHARD III

(Historical play)

Shakespeare gives a dramatic history of England from King John to Henry VIII, inclusive. *Richard III* is a good choice for study.

- a. Compare Richard III as Shakespeare presents him with the Richard III of history.
- b. Note how the personality of Richard III dominates the play, and how he manipulates the action. Give instances.
- c. What hints can you find as to the coming overthrow of Richard?
- d. What can you say as to the poetic justice of the play?

ROMEO AND JULIET

(An early tragedy)

- a. Note the Italian elements in the play.
- b. What part does Mercutio play?
- c. Which takes the initiative in the love-making, Romeo or Juliet? Which of the two acts moves promptly and seems to be the more efficient?
- d. What seems to be Juliet's relation to her mother and father?
- e. Note the accidents on which the action seems to turn.

MACBETH

(A later tragedy)

- a. Sources. Holinshed's *Chronicle-History of England, Scotland, and Ireland* and Reginald Scot's *Discovery of Witchcraft*.
- b. Date of Writing. Simon Forman saw it acted April 20, 1610. (See allusion to James I as King of two countries, Act IV, Scene 1.)
- c. Time Scheme. Nine days represented on the stage, and intervals. (See Mr. P. A. Daniel, in the *Shakespeare Society's Transactions* for 1877-1879, pp. 201-208.)
- d. Setting and Atmosphere: Are they fitting?

- e. Analysis of the Plot or Action.
 - (a). Exposition, Act I, Scenes 1 and 2.
 - (b). Complication, Act I, Scene 3, to Act III. Note in Scene 4 the escape of Fleance. This marks the turning point.
 - (c). Resolution, Act III, Scene 4, to the end—a double catastrophe.
Study the incidents in Act III, 4, 51, where Macbeth sees the ghost of Banquo; also in Act V, 8, 15, where is made a revelation of Macduff's birth.
- f. Study of the Characters.
 - (a). The two central characters well defined.
 - (1). A study in character parallelism and contrast.
 - (2). Their comparative guilt.
 - (3). Their personal development or degradation.
 - (4). Their relation to the plot.
 - (b). Secondary characters—Banquo and Macduff the only ones well differentiated.
 - (1). Did Banquo connive at the murder of Duncan in order to carry out his own ambitious plans, or was he pure and disinterested?
 - (2). The place of each (Banquo and Macduff) in working out the plot.
- g. The Witches.
 - (a). Physical appearance.
 - (b). Mental and moral characteristics.
 - (c). Artistic and psychological purpose in the drama.
- h. The Ethics of the Play. "Every sin bears within itself the seed of its own punishment."

QUESTIONS FOR DISCUSSION

- (a) Had Macbeth conceived the idea of murdering Duncan before he met the witches?
- (b). Did Lady Macbeth only pretend to faint?
- (c). Did Lady Macbeth know of Macbeth's intention to murder Banquo?
- (d). Did Shakespeare mean his readers to understand that the ghost of Banquo really appeared?
- (e). What was the artistic purpose of the knocking at the gate, and of the porter scene?

JULIUS CAESAR

(Shakespeare's greatest historical tragedy)

- a. Brutus is an idealist, Cassius the practical man of affairs. (Note that the following of Brutus' advice is always disastrous.) Discuss.
- b. Julius Caesar represents monarchy; Brutus, ideal democracy. Which wins, and why?
- c. Compare Mark Antony and Octavius Caesar as presented in the play. Did Antony succeed in making Octavius his tool?
- d. Shakespeare had supreme respect for Julius Caesar; he speaks of him in some way in virtually all of his plays. Why, then, does he present him in this play as deaf, an apoplectic, etc.?

THE TEMPEST

This is a drama of reconciliation following the stormy tragedies. It is deemed by many the most personal of Shakespeare's plays. Prospero is thought to be Shakespeare himself. He is a great magician and rules the elements; so when he lays down his magician's wand he typifies Shakespeare giving up his writing and retiring to Stratford.

QUESTIONS

- (a). Compare Miranda and Juliet.
- (b). Compare Ariel and Puck.
- (c). Compare Caliban with Browning's Caliban, in *Caliban upon Setebos*.
- (d). Show that Prospero gathers up the threads of the whole action in his own hands and manages everything. In his dealings, is he just and wise enough to typify Providence?
- (e). The courtship of Ferdinand and Miranda is an exquisite idyll. Study it.

THE EPIC

1. Definition.
2. Classification according to (a) form or treatment; (b) subject matter.
3. The leading epic of each nation.
4. General outline for the study of the epic applied to *The Iliad*.
 - a. Classification. An epic of growth, if we judge by the material used, yet shaped into a unified and artistic whole by one writer.
 - b. Sources. The legends and myths of Greece.
 - c. Theme. The wrath of Achilles.
 - d. Historical Background. The events leading to the Trojan War and the war itself; especially the direct causes of the war—the awarding of the golden apple by Paris, son of King of Troy, to Venus; and the stealing of Helen, wife of Menelaus, by Paris, assisted by Venus.
 - e. Characters. The leading characters should be studied in groups, with brief comments on each.
 - (a). Human (or half human) characters.
 - (1). Greeks.

Agamemnon, leader of Grecian hosts, brother of Menelaus.

Achilles, the most valiant and feared of the Greeks.

Menelaus, King of Sparta, husband of Helen.

Ulysses, crafty king of Ithaca, hero of *The Odyssey*.

Nestor, wisest of the Greeks.

Ajax, strongest of the Greeks.

Patroclus, friend of Achilles.
 - (2). Trojans.

Hector, leader of Trojan hosts, son of Priam.

Priam, King of Troy.

Paris, son of Priam, abductor of Helen.

Aeneas, son of Venus and Anchises, hero of *The Aeneid*.
 - (3). Women.

Helen, daughter of Jove (Zeus) and Leda, now in Troy as wife of Paris.

Hecuba, wife of Priam.

Andromache, wife of Hector.

Cassandra, daughter of Priam.
 - (4). Gods and Goddesses.

Jove, Juno, Minerva, Venus, Apollo, Mars, Mercury, Vulcan and others.
 - f. The Plot. Achilles is angered by Agamemnon's taking from him his beautiful slave maiden, Briseis. He withdraws from the war, taking with him his soldiers, and calls upon his mother, Thetis, to appeal to Jove to avenge his wrong. Jupiter consents; the Greeks are driven back by the Trojans until they are forced to implore the valiant Achilles to return to battle. Achilles refuses, but allows Patroclus to return in

his armor. Patroclus is slain by Hector. Then, in rage and grief, Achilles returns, burning like a star in resplendent beauty. After driving Hector around the walls of Troy under the eyes of Trojans and Greeks, Achilles, with the help of Minerva, slays Hector. The epic closes with the appeal of Priam to Achilles for the body of his hero son and the funeral rites of the latter. The plot then deals with a single episode of the ten-year Trojan War, but is greatly enriched by the relation of events occurring before the story proper opens, and by the part that the gods play in the great conflict.

- g. Supernatural Elements. To what extent used? In the *Iliad* to what extent do the gods shape the action? What room is left for the individual will and for individual responsibility? Find out which gods and goddesses side with the Greeks and which with the Trojans, and why.
- h. Form and Style.
 - (a). Verse, hexameter.
 - (b). Imagery is especially rich in similes. Note the sources of these—nature, common life, etc.
 - (c). Epithets are most significant, and are characteristic of this epic. "White-armed Juno," "swift-footed Achilles," etc. Find others and comment on their literary value.

NOTE.—The best translations of *The Iliad* are by Bryant, in blank verse; Pope, in heroic couplet; Lang, Leaf, and Meyer, in prose. The most thorough analysis of this and Homer's other epic, *The Odyssey*, is found in Wolf's *Prolegomena ad Homerum* (1795).

THE LESSER EPIC

This form of literature is more commonly known as the Metrical Romance, the Ballad, the Pastoral, or the Idyll.

Of the Metrical Romance or Tale, Chaucer's *Canterbury Tales*, Spenser's *Faerie Queene*, William Morris' *Earthly Paradise*, and Longfellow's *Tales of the Wayside Inn* are illustrations.

The Ballad. Definition, characteristics, origin, subject matter, the minstrel, history of English ballads, their preservation, Percy's *Reliques*, the art-ballad supersedes the "folk song"—all these topics may be studied with profit. Name English and American ballad writers.

The Pastoral. This form of the lesser epic has a special province and special characteristics. Examples in which this may be seen are: *Ruth* (Bible); *Hermann and Dorothea* (Goethe); *Comus* (Milton); and *The Gentle Shepherd* (Ramsey).

Idyll. Definition, derivation of name.

Idylls of the King, Tennyson.

- (1). Form and main division.
- (2). Subject.
- (3). When written.
- (4). Source of titles of the different poems of the series.
- (5). Character of King Arthur, the hero.
- (6). How are the poems unified?
- (7). Written in blank verse.

THE LYRIC

- 1. Define and characterize *Lycidas*, etc.
- 2. Compare with the drama and the epic.

3. Different kinds of Lyrics:

- a. The sonnet, its definition and origin. Name the first English sonneteers; other great English sonneteers. Look up each and learn what sonnets each wrote, together with characteristics as a sonneteer, etc. Form, and how may this vary?
- b. The elegy, its definition and purpose. Name most noted elegies of English literature.

SOME WELL KNOWN ELEGIES

- (a). *Lycidas*—author, date, main thought, divisions. Note the pastoral elements; also Milton's treatment of nature and of immortality. Source of name Lycidas. Whom does Lycidas represent? Who is the mourning shepherd?
- (b). *Adonais*—author, in memory of whom? Modeled after what poems? What does Shelley say about the poem?
- (c). *In Memoriam*. (See article.) Author? In whose memory written? Form. Treatment of nature, immortality, belief in God. Note the rise from despair to hope, disbelief to belief, sorrow to joy.

(d). The Ode. Definition and characteristics, origin of ode, its form; some great English odes.

4. An outline for the study of the Lyric may be applied to *L'Allegro*.

a. Thought.

(a). Central thought, the pleasures of the day.

(b). Whole line of thought.

(1). Banishment of Melancholy.

(2). Welcome to Joy.

(3). Joy's companions.

(4). The pleasures of the day in company with Joy or *L'Allegro*—morning, noon, afternoon, evening, night.

(5). Dedication of the poet to Joy.

b. Emotion.

(a). Dominant—Joy, a radiant good cheer.

(b). Minor emotions—strong dislike of Melancholy akin to indignation; lights and shades of Joy all through the poem.

c. Form.

(a). Stanzaic structure—irregular, determined by the thought.

(b). The verse-form is normal—iambic tetrameter, with many irregularities, in harmony with the thought and emotion. (See discussion of verse-form under POETRY.) There are alternating rhymes, with many irregularities.

d. Style.

(a). Imagery. Point out figures and note what figure prevails, also the sources from which figures are drawn. (See FIGURES OF SPEECH.)

(b). Diction. Are the words simple, picturesque, musical, etc.?

e. Questions on *L'Allegro* and *Il Penseroso*. Make a list of their resemblances and of their contrasts. Write your thoughts on each. Discuss the treatment of nature, and the classical references in each.



THE NOVEL

Based on articles in THE STANDARD REFERENCE WORK. (See many noted works of fiction, the names of writers, etc.)

1. Define fiction, novel, romance.
2. What three series of medieval fiction have strongly influenced modern literature?
3. General characteristics of medieval fiction.
4. What great work did much to extinguish the romance of chivalry?
5. What line of fiction followed this? (The Picaresque novel.)
6. What is considered to be the beginning of modern English fiction?
7. Name several romances and novels that you have read and draw up a list of points in which they differ. (See list at close of FICTION.)
8. Make a list of the novelists of the Eighteenth century, together with a few works by each.
9. Richardson. Why specially worthy of mention? How old when he began to write novels? Form of these novels? What was the first modern English novel? (This letter-form of the novel, as well as Richardson's sentimentality, widely influenced not only English, but continental literature.)
10. Make a list of Nineteenth century English novelists in chronological order.
11. Note the praise Walter Scott gives Jane Austen. Read *Pride and Prejudice* and discuss in the light of Scott's comment.
12. Read Charlotte Brontë's *Jane Eyre*. Compare its passion and power and its intensely dramatic situations with the more quiet and polished *Betty Alden* of Jane Austen.
13. Read Mrs. Gaskell's *Cranford*. Read article on *Cranford* and discuss some of the points there made, i. e., "The story is full of a quaint and almost pathetic humor."
14. What was Scott's first novel? Date? How received? How rapidly written? Authorship made known when? Total number of his novels? Note the relative number of Scottish, English, Continental, and social novels. Try to find out what periods of history Scott's novels cover. Study *Ivanhoe* to get its historical background. Compare the treatment of Norman and Saxon. Compare Rebecca and Rowena. Write a character sketch of *Ivanhoe* and of Isaac of York.
15. What experiences in Dickens' life did he utilize in his novels? His literary apprenticeship. The reception of his first work. Name several of his novels and tell briefly of what they treat. To what extent did his novels strike at social abuses? His treatment of children. The literary results of his trips to America. Was he a mere caricaturist, or are his characters true to nature? Does he deal much with character development? Does he often attempt to depict men and women of the upper classes? With what success? Is his humor bitter and cynical, or tender, kindly, and sympathetic? Describe a few humorous scenes and characters. Is his pathos genuine or a little strained? Had he a fine sense of the dramatic? Does he lead up to dramatic scenes by artistic preparation? (Illustrate from his works all points discussed.)
16. Compare Thackeray's life with that of Dickens. Make a list of his novels with significant points about each. Read especially *Vanity Fair* and *Henry Esmond*. It is said that *Vanity Fair* taught the English adventurer how to live on nothing a year. Discuss. Make a list of points in which Becky Sharp and Amelia Sedley differ. *Henry Esmond* is considered by many the finest character in English fiction. Discuss his strong points and weak points, if they are to be found. Can you justify the author for allowing the beautiful Beatrice to fall as low as she does? Does this seem inevitable?

17. What was "George Eliot's" real name? Into what two groups may her novels be divided? Her place in literature?
18. An outline as a model for the study of the novel, *Silas Marner*.

SILAS MARNER

BY GEORGE ELIOT

- a. Setting. Time, early in the Nineteenth century. Place, Middle England (A small country community surrounding the estate of the English squire.)
- b. Character study.
Upper class: Squire Cass, Godfrey Cass, Dunstan Cass, Nancy Lammeter, Priscilla Lammeter.
Lower class: Silas Marner, Molly Cass, Aaron Winthorpe, Dolly Winthorpe.
Connecting character: Eppie Cass.
- c. Questions on characters. Are the characters well drawn, true to life and well marked or differentiated? Do we see character development; if so, can we point out the causes? Are they interesting in themselves? Which are especially clever and witty? Characterize the wit of each. Is Silas, the central character, especially interesting in himself? If not, how account for the ever-living interest in the story?
- d. Plot. Is it well motivated? Does one event grow naturally from another? Do we find artistic preparation and dramatic foreshadowing—that is, are there sufficient hints of coming events? Do we find suspense, and yet surprise? Point out fine dramatic situations.
- e. Relation between plot and characters. Is this close? Do the characters motive the plot; and on the other hand, does the plot or order of events influence markedly the characters?
- f. Theme. The Influence of a Little Child.
 NOTE.—In *Silas Marner*, the turning points in the plot coincide with the turning points in the character of Silas.

THE ESSAY

1. Definition and derivation of word.
2. To what extent may the essay be personal?
3. Give some of its leading characteristics.
4. History of the literary essay.
5. Name leading English essayists.
6. Classify the essay as to subject matter and style.
7. Some noted essayists and their works.
 - a. Francis Bacon. Note the abstract nature of his titles. Note the terseness and axiomatic nature of his sentences. Read *Friendship, Truth, Ambition*.
 - b. Addison and Steele. For what periodicals did they write? Read a few essays by each and comment on differences in thought and style. What was the aim of the *Spectator* essays? Make a list of the social follies and vices at which they are aimed. What two great social elements were united in Addison? Can you show this through his work?
 - c. William Hazlitt. Name some of his friends. What were his main interests as shown in his essays? Read some of his Shakespeare criticism; do you find it suggestive and illuminating?

- d. Charles Lamb. Lamb's essays belong, in the main, to the personal type; and it is in their revelation of the author's charming and winsome personality that their special interest lies. Note in his *Essays of Elia* how he presents himself as Elia, his sister Mary as Bridget, his father as Lovell, etc. Find from his essays what his special interests were, also his personal characteristics.
 - e. Matthew Arnold. Read his essays on Wordsworth and Shelley. Is he a sympathetic critic? Does he deal mainly with the men themselves, or with their writings? What does Arnold mean by "Philistine?" Of what service is *Culture*?
 - f. Emerson. Name some of his special interests. What was his attitude toward the Civil War? The general characteristics of his essays. How did he write them? What can you say of him as a stimulator of thought? Verify all these points from his essays.
8. Model Lesson on Macaulay's *Essay on Milton*.

ESSAY ON MILTON

I. Thought Analysis.

A. Introduction—occasion of writing. (Paragraphs 1 to 7.)

B. The body of the essay.

1. Milton's genius as a poet.

- a. His disadvantage because of the time in which he lived, 8-18.
- b. His Latin poetry, 19 and 20.
- c. Characteristics of his poetry, 21-25.
 - (1). Harmony of versification.
 - (2). Remoteness of association.
 - (3). Magical quality.
 - (4). *L'Allegro* and *Il Penseroso* as illustrations.
- d. Milton's dramatic works, 26-30.
 - (1). *Comus*.
 - (2). *Samson Agonistes*.
- e. Epics, 31-49.
 - (1). *Paradise Regained*.
 - (2). *Paradise Lost*.
- f. Comparison of *Paradise Lost* and the *Divine Comedy*, 32-41.
 - (1). Subjects somewhat the same; treatment different.
 - (2). Definiteness of the *Divine Comedy*, 28; indefiniteness of *Paradise Lost*, 33-35.
 - (3). Dante an eye-witness, Milton not, 36.
 - (4). Treatment of supernatural beings by the two poets, 37-41.
- g. Milton's treatment of the supernatural compared with that of Klopstock and Aeschylus, 41-43.
- h. Poetry of Milton and Dante takes its character from their personalities, 44-47.
- i. Milton's Sonnets, 48-49.

2. The public conduct of Milton, 50-93.

- a. Characteristics of the age in which he lived, 53-57.
- b. Milton to be judged according to our judgment of the resistance of the people to Charles I, 52-57.
 - (1). Attitude of Macaulay toward Charles I, 74.
 - (2). Attitude of Milton toward Charles I, 73-75.

- c. Milton's attitude toward Cromwell as Protector, 76-77.
- d. The public character of Milton distinguished from that of his associates, 79-87.
 - (1). The Puritans, 80-85.
 - (2). The Royalists, 86.
 - (3). Milton combines the best qualities of Puritan and Royalist, 87.
- e. The great battle fought by Milton for liberty—civil, religious, and domestic, 88-90.
- f. Characteristics of his prose works, 91-92.

C. Conclusion.

- 1. Warm personal feeling for Milton.
- 2. A picture of the poet, old and blind.
- 3. A tribute to his noble character.

II. Style.

A. Paragraphing.

- a. Clear, one topic developed as a rule in each paragraph.
- b. Topic sentence at beginning, 22, 23, 24, 41.
- c. Transitions fine.

B. Antitheses, 45, 82, 83.

C. Illustrations, 69, 70, 33, 34, 36, 30.

D. Comparisons, including similes, 25, 26, 27, 29, 43, 42, 45, 47.

E. Allusions, 23, 28, 29, 39, 42, 83.

F. Climax, 81-82.

G. Balanced sentences, 62, 82.

H. Faults of style. Too much display in his wealth of illustrations; paints in too strong colors; too free a use of hyperboles and paradoxes; apt to lose the main thesis by the use of too many details.

I. Excellences of style. Clearness; vividness; picturesqueness; strength; fine paragraphing.

III. General estimate of Macaulay. Underlying the body of his thought was "common sense," but he lacked "penetrative imagination" and insight into human character and human motives. His judgments were too hasty—"ready made." He was not highly regarded either as a critic or as a stylist by the best English critics, though he had a wide popularity among the people. The writer for a busy man, because of his clear and picturesque way of presenting the subject in hand. Has had a marked and, in the main, good effect on modern journalism.

AMERICAN LITERATURE

I. COLONIAL LITERATURE (1607-1765)

A. IN THE SOUTH

The seventeenth century was the golden age of English literature—a century of invention, discovery, adventure, romanticism. The earliest Southern literature in America reflects this life for it was produced by fortune hunters, colonizers, and “gentlemen” in search of wealth.—(Capt. John Smith.)

B. IN THE NORTH

The earliest writings were religious (*Bay Psalm Book; Day of Doom*). Reason: The Plymouth settlers had come for religious freedom. The Bible was their rule of conduct. Furthermore, they believed they were founders of a great nation. Hence they recorded their achievements. (*History of Plymouth Plantation*—Bradford.)

II. THE REVOLUTIONARY PERIOD (1765-1790)

This was a period of intense political excitement. The literature of the time is full of this spirit. Newspapers (*Boston Gazette, New England Courant*) were founded to disseminate political ideas. Song-writers and poets inspired patriotism (Philip Freneau, Joel Barlow, Timothy Dwight). Political writers were the dominant class because they directly influenced the people (James Otis, Thomas Paine, Alexander Hamilton, Thomas Jefferson). Benjamin Franklin, diplomat, philosopher, editor, scientist, was the first real American.

III. THE NATIONAL PERIOD (1800-)

A. KNICKERBOCKER GROUP

This was so called because the writers lived in or near New York. Literary progress was rapid after the Revolutionary War. Washington Irving, “the Father of American Letters,” was the first to be recognized abroad. (*Life and Voyages of Columbus; The Conquest of Granada; Life of Goldsmith*.)

He became famous at home for his tales of the Hudson Valley (*Legend of Sleepy Hollow; Rip Van Winkle*) and for his *Knickerbocker's History of New York*. Cooper's *Spy* brought instant recognition, which was shown to be merited by his “Leatherstocking” series, and many sea stories. William Cullen Bryant was the poet of the group. He was the first to write of nature in our own country. (*The Fringed Gentian; The Blue Violet*.) *Thanatopsis* was written before he was eighteen. Minor poets were Drake, Halleck, and Willis. Unlike Bryant, they were men of wealth and wrote gay society verse.

B. THE TRANSCENDENTALISTS

About 1830 the center of literary interest again shifted back to New England. Transcendentalism, a mixture of religion, philosophy, idealism, and impractical notions of life found many followers. Great pulpit orators (Channing, Parker) abandoned the old, harsh religion and adopted the new, liberal faith. Poetry broke away from

old conventions and voiced the new belief in the brotherhood of man and the omnipresence of God. Emerson, "The Sage of Concord," was the leading spirit. Amos Bronson Alcott was his greatest disciple. Nathaniel Hawthorne wrote *The Scarlet Letter*, America's greatest novel. Thoreau lived alone and wrote our first great nature essays. For a time the Transcendentalists had a community of their own at Brook Farm. But the movement soon failed, as did also its paper, *The Dial*.

C. THE SOUTHERN GROUP

After the Revolutionary War, literature in the South declined. There were no large cities, no publishers, no means of ready communication. The management of plantations, moreover, called for executive and not artistic ability. There was, however, a large group of minor writers (Timrod, Hayne, Simms); and two poets, Edgar Allan Poe and Sidney Lanier, are of note. Poe is the originator of the American short story, and in the field of mystery and the detective tale he has no equal (*Murders in the Rue Morgue*; *The Gold Bug*). His poetry is wonderfully musical, as in *Annabel Lee*, *The Bells*. Better than anyone else he can express feeling by means of sound. Lanier was both a poet and a musician. His love of music is reflected in his poetry, for it is rich, melodious, and full of feeling. (*The Marshes of Glynn*; *The Symphony*.)

D. THE CIVIL WAR GROUP

Opposition to slavery was hastened by the Transcendental movement, for both had the same object, i. e., the freedom of man to think and live according to his own conscience. The crisis was precipitated by Harriet Beecher Stowe's *Uncle Tom's Cabin*, our first novel with a purpose, and Whittier's *Songs of Freedom*. The abolitionist orators (Daniel Webster, Wendell Phillips, Charles Sumner) helped to rouse the people, and lecturers and editors (William Lloyd Garrison) wrote and suffered for the cause. Nearly all are forgotten since the war except Daniel Webster. Nothing like his vigor, eloquence, and logic have been approached in America.

E. THE NEW ENGLAND GROUP

The best known writers of this group were Oliver Wendell Holmes, James Russell Lowell, and Henry Wadsworth Longfellow. All were born near Boston, reared in refined homes, given college education, and broadened by travel. All were Harvard professors. Lowell is our greatest critic (*Fable for Critics*), but he will also be remembered for his anti-slavery poetry and for much humorous verse. Longfellow is more genuinely loved by people of all classes than any other American poet. He dealt with the joys and griefs of life in a sincere, sympathetic manner. Among scholars he is given a high place for his translations and his treatment of foreign folk tales and sagas. (*The Skeleton in Armor*.) Holmes was the humorist of the group. For fifty years he wrote a poem annually for the reunion of his college class. Among the rest of his works, his charming series, *The Autocrat of the Breakfast Table*, and such poems as *My Aunt* and *The Wonderful One-Hoss Shay*, will never be forgotten.

F. THE HISTORIANS

From earliest times historical interest in our country has been great—especially at Harvard University, from which institution most of our historians have come. Each worked in a different field. George Bancroft spent fifty years on a scholarly history of the United States. William H. Prescott, though blind, learned Spanish and gave his life to three volumes on Spain, the *History of the Conquest of Mexico*, and *Conquest of Peru*. John L. Motley wrote a fine history of the Netherlands; and Francis Parkman wrote several volumes on the struggle between France and England for the New World. His *Conspiracy of Pontiac* and *A Century of Conflict* are best known.

LATER WRITERS

In addition to the authors generally given high place is a class so near our own time that it is difficult to judge at present what their permanent position in literature will be. Among them is Walt Whitman, the poet of American Democracy. His attitude toward science, nature, the individual man, and especially his disregard of the commonly accepted forms of poetry, place him in a class by himself. Totally unlike him, and yet like him in his love of outdoor life and the freedom and ardor of his temperament, is Bayard Taylor. Much of Taylor's poetry will probably be forgotten, yet his *Poems of the Orient* are full of beauty, and his *Lars* and *Bedouin Song* have been universally read. Among minor poets a host of others should be mentioned. The work they did is not of the high order of the Cambridge group, but, within its limits, it is finished in form and often full of sentiment. Thomas Bailey Aldrich's work is delicate and refined. Richard Watson Gilder and Edmund Clarence Stedman possess high poetic feeling. Edward Rowland Sill has written some of our best sonnets. Eugene Field is the author of our best children's poems, and James Whitcomb Riley's verses are full of humor, pathos, and kindliness. In the class of minor poets should also be mentioned Lucy Larcom, Emily Dickinson, The Cary Sisters, Celia Thaxter, Thomas B. Reade, and Cincinnatus Heine (Joaquin) Miller. Much of the poetry, especially that written by women, is designed for children. Aside from these, however, hosts of others, notably Louisa Alcott, Frances Hodgson Burnett, John Abbott, J. T. Trowbridge, and Nathaniel Hawthorne have written several volumes of children's stories in prose.

Since the close of the Civil War the development of American literature has been phenomenal. The settling of new territories, the opening of new industries, and the progress of science and industry have given a wealth of material for short stories, sketches, essays, and poems. In general it is safe to say that the day of the long story is past. The hurry of life today demands the more compressed form and swifter action of the short story. Moreover, there has been a marked change in style and treatment. We no longer seek romantic incidents, far-away scenes, and impossible actions. On the other hand the story writer of today finds in every day life and among every day people the material for his work. The leaders in this Realistic movement have been William Dean Howells and Henry James. Both analyze their characters with great subtlety and precision, but one cannot read them long without wishing for a larger, freer movement.

A second feature of present literature is its local color. The greatly reduced cost of publication, the peculiarities of life in the different sections, and the novel situations arising in new conditions, have furnished an inexhaustible fund for authors in all sections of the country. George W. Cable and Thomas Nelson Page have written of the Old South, and Joel Chandler Harris has given us some of our best negro dialect stories. James Lane Allen has given Kentucky a place and William Allen White has done the same for Kansas. Though the literary center has again shifted from Boston to New York, much good work is still done in New England. Kate Douglas Wiggin, Sarah Orne Jewett, Mary E. Wilkins, Harriet Prescott Spofford, and Alice Brown, have written stories full of the color of New England life. Western literature is still new and experimental, yet one needs but recall Bret Harte's stories of California mining camps to realize what a field it offers. In addition to those already mentioned the North has produced Edward Everett Hale and Frank R. Stockton.

In comparison with the older literature it is fair, on the whole, to say that the newer is fresher, more luxuriant, more imaginative, and more artistically finished. Another quality distinctly American remains for separate mention—its humor, often crude and vulgar, but never borrowed. It runs through all grades from the refinement of Lowell and Holmes to the patent joke of the colored supplement and the

latest slang phrase. While it is true that the joke often arises from a lack of reverence and the American failure to appreciate the sublime, nevertheless such men as Henry W. Shaw (Josh Billings), Charles Farrar Browne (Artemus Ward), Samuel L. Clemens (Mark Twain), and David Locke (Petroleum V. Nasby), have produced a class of work that is likely to remain a real contribution to the national literature of humor.

Nor has America failed in more serious work. John Fiske is widely known as a scientist and philosopher. Justin Winsor is the author of an elaborate history of America and with him we may place John Bach McMaster and Woodrow Wilson. Samuel McChord Crothers, Agnes Repplier, George W. Curtis, and John Burroughs, are in the first rank among the later essayists. Charles Eliot Norton is a scholar and critic. Felix Schelling is our best authority on Elizabethan Literature, and Horace Howard Furness is a famous Shakespearean scholar.

IV. MAGAZINE AND NEWSPAPER LITERATURE

The development of American magazine and newspaper literature is a chapter by itself. Until about 1830 little improvement had been made on the crude publications of Revolutionary War times, though *The Saturday Evening Post*, *The North American Review*, and *The New York Evening Post* were fairly established. But the issue, in 1835, of *The Southern Literary Messenger* marked the beginning of what is now a numerous class of journals published largely for literary purposes. Improvements in the art of printing, readier means of communication, and the growth of American scholarship, together with an increasing interest in social and political questions, led, about the middle of the century, to the establishment of several others. In 1841 the *New York Tribune* was first published and the same year saw the first issue of *Graham's Magazine*; *Harper's* appeared in 1850, *Putnam's* in 1853, and in 1857 Lowell became the first editor of *The Atlantic*. *Scribner's* was first issued in 1870, *The Critic* in 1881, *The Century* in 1884, and *The Forum* in 1886. Aside from these there are a host of others published for all ages, classes, and nationalities—trades and science journals, professional and technical periodicals, humorous and all-story magazines, not to mention the organs of religious and philanthropic sects and the publications of schools and organizations of all sorts.

In view of the mass of material that is yearly being put on the market, our shifting ideals, our undeveloped standards, and especially our nearness to the bulk of American literature, it is impossible either to judge of the value of what is being written or to predict its future, but if present progress may be taken as a criterion it seems fair to say that America is only entering upon the real period of her literary activity.

V. SOME SPECIAL STUDIES

EUGENE FIELD

I. EARLY LIFE.

1. Born Sept. 3, 1850, at St. Louis Mo.
2. Son of Roswell Martin and Frances (Reed) Field.
3. Cared for by Miss Mary French Field.

II. EDUCATION AND TRAVEL.

1. Prepared for College at Amherst, Mass.
2. Studied at Williams College, at Knox College, and at the University of Missouri.
3. Traveled in Europe, 1872; 1889.

III. WORK.

1. Reporter on St. Louis Evening Journal; Chicago Record-Herald.
2. Editor of "Sharps and Flats" column of the *Chicago Daily News*.



3. Author of *A Little Book of Western Verse*;
A Little Book of Profitable Tales;
Echoes from the Sabine Farm;
With Trumpet and Drum;
Second Book of Verse;
The Holy Cross and Other Tales; etc.

IV. HOME LIFE.

1. Married Miss Julie Sutherland Comstock.
2. Children:
 Melvin Gray,
 Eugene ("Pinny"),
 Frederick ("Daisy"),
 Mary French ("Trotty"),
 Roswell Frances ("Posy"),
 Ruth Gray ("Sister Girl").
3. Homes—St. Joseph; St. Louis; Buena Park, Chicago.
4. Library, 3,500 volumes.

V. DEATH, NOV. 4, 1895.

VI. INTERESTING FACTS ABOUT EUGENE FIELD.

1. He was devoted to small animal pets and kept many of them. He fed birds and stray dogs.
2. He had an enormous collection of dolls. He kept them in what he called his workshop, where all sizes, nationalities and types of beauty were represented.
3. He loved flowers—especially carnations.
4. His favorite books were *The Scarlet Letter*, *Don Quixote*, and *Pilgrim's Progress*. In all these books there is a mystery or romance and he loved both.
5. "I believe in ghosts," he said, "and in witches and fairies. I should like to own a big astronomical telescope and a twenty-four-tune music box. I am afraid of the dark. The man who is not has no imagination."
6. His heroes were Martin Luther, Madame Lamballe, and Abraham Lincoln.
7. He disliked politics.
8. He was indifferent to his own appearance though he liked to have well-dressed people about him.
9. He was fond of practical jokes.
10. He loved humanity. Bootblacks and newsboys were his friends as well as men of rank and wealth. He was always optimistic.
11. The woman who most influenced him was his grandmother.
12. Some of his problems for children:—
 "How many birds are there in seven soft-boiled eggs."
 "A man had six sons and four daughters. If he had had six daughters and four sons, how many more sons than daughters would he have had?"
 "If there were no green peaches there would not be so many children's sizes of gold harps in Heaven."

VII. FIELD'S "THE SUGAR-PLUM TREE."

Have you ever heard of the Sugar-Plum
 Tree?

'Tis a marvel of great renown!
 It blooms on the shore of the Lollipop
 sea

In the garden of Shut-Eye Town;

The fruit that it bears is so wondrously
 sweet

(As those who have tasted it say)
 That good little children have only to eat
 Of that fruit to be happy next day.

When you've got to the tree, you would
have a hard time

To capture the fruit which I sing;
The tree is so tall that no person could
climb

To the boughs where the sugar-plums
swing!

But up in that tree sits a chocolate cat,
And a gingerbread dog prowls below—
And this is the way you contrive to
get at

Those sugar-plums tempting you so.

You say but the word to that gingerbread
dog

And he barks with such terrible zest

That the chocolate cat is at once all
agog,

As her swelling proportions attest.

And the chocolate cat goes cavorting
around

From this leafy limb unto that,
And the sugar-plums tumble, of course, to
the ground—

Hurrah for that chocolate cat!

There are marshmallows, gumdrops, and
peppermint canes,

With stripings of scarlet or gold,
And you carry away of the treasure that
rains

As much as your apron can hold!

So come, little child, cuddle closer to me
In your dainty white nightcap and
gown,

And I'll rock you away to that Sugar-
Plum Tree

In the garden of Shut-Eye Town.

(Questions for study by children eight or nine years of age).

1. What is the most beautiful tree you know?
2. How should you like a sugar-plum tree?
3. Does it make you think of a Christmas tree?
4. Where is the Lollipop Sea? The Shut-Eye Town?
5. How high is the tree?
6. If you can not climb to the boughs, how will you get the fruit?
7. Name the goodies on the tree.
8. Is the chocolate cat more important than the gingerbread dog?
9. Did you ever attend a picnic where a paper bag of goodies was tied to a tree, then burst, while the children gathered the fruit, candy, and nuts in their aprons?
10. Meaning of "all agog;" "swelling proportions;" "cavorting around?"
11. Who will go with the little child to the Sugar-Plum Tree?
12. How do you think the writer of this poem felt toward children? Do you think he liked fairy stories?
13. What other lullabys do you know?

WALT WHITMAN

In many ways Whitman's place in American literature is unique. He was unlike most other people in his unconventional notions of dress and manner, and different from other poets in that he believed that poetic form (rhyme, metre, etc.) was to be avoided. He lived very simply, walked a great deal in the open air, always dressed very coarsely, and made dock hands and coal heavers his friends. From time to time he was a printer, an editor, a teacher, a correspondent. During the war he was an army nurse, and so phenomenal was his success that it is said that dying soldiers revived at sight of him. His notions of poetry led him to write a great many things that sound like catalogue lists to us; but when he



is most in earnest he falls into the accepted poetic form, as in *O Captain! My Captain!* Whitman was devoted to Lincoln, and the poem just mentioned is written in memory of him. He first read it himself at the close of a lecture which he gave at his home town, Camden, New Jersey.

O CAPTAIN! MY CAPTAIN!

O Captain! my Captain! our fearful trip is done,
The ship has weather'd every rack, the prize we sought is won,
The port is near, the bells I hear, the people all exulting,
While follow eyes the steady keel, the vessel grim and daring;
 But O heart! heart! heart!
 O the bleeding drops of red,
 Where on the deck my Captain lies,
 Fallen cold and dead.

O Captain! my Captain! rise up and hear the bells;
Rise up—for you the flag is flung—for you the bugle trills,
For you bouquets and ribbon'd wreaths—For you the shores a-crowding,
For you they call, the swaying mass, their eager faces turning;
 Here Captain! dear father!
 This arm beneath your head!
 It is some dream that on the deck,
 You've fallen cold and dead.

My Captain does not answer, his lips are pale and still,
My father does not feel my arm, he has no pulse nor will,
The ship is anchor'd safe and sound, its voyage closed and done,
From fearful trip the victor ship comes in with object won;
 Exult O shores, and ring O bells!
 But I with mournful tread,
 Walk the deck my captain lies,
 Fallen cold and dead.

Notice that the whole poem is a figure of speech. It is full of words that suggest the sea and sea life. How does this affect the movement and the spirit of the poem? What are some of the most striking words? Do you think it appropriate to liken a country to a ship? (Give several reasons). Can you name a poem in which Longfellow does the same? Do you judge from this that Whitman was familiar with seamen and sea life? What reference to his life as a nurse? What celebration is taking place? Why the flag; the bugle; the wreaths?

All this, however, is incidental to the real purpose of the poem. What do you think of it as a tribute to a great friend and hero? Can you see why this is one of the noblest poems in our literature? Do you know any other poems about Lincoln? Compare them with this in point of grandeur and pathos. Recall Lincoln's life and work and read the poem again.

LITERATURE IN ITS HISTORICAL SETTING

As history has been the basis for much of our literary fiction, this in turn may be the inspiration and incentive to our knowledge of history. The reading of this class of literature needs no defense. Historical fiction has at times been decried on account of its departure from fact, in its not being true history. This defect is largely over-balanced by its human interest. Through it a period may be made to live in a reader's mind in a way equalled by no mere recital of fact. Again how many of us have no other knowledge of an historical era than that contributed by one of our masters of romance.

The following is an outline of the standard fiction of various countries related to historical events in chronological order. It gives a brief digest of many of the works, with marginal reference to events, characters, etc. The arrangement by countries and eras is self-explanatory. Inclusion of works has been somewhat arbitrary, but with the attempt to furnish, as far as possible, a chronological continuity. Dates are, in some instances, approximations, and titles to articles in the STANDARD REFERENCE WORK for historical research are repeated as the occasion seems to warrant. In addition to the historical articles mentioned, the reader is referred to articles on authors, and books as well. The first column gives the historical periods with subjects and reference, while the second column gives the fiction in brief synopsis.

EGYPT—CARTHAGE

17th Century B. C.

Pharaoh
Joseph
Egypt
Pyramids

The Stonecutter of Memphis (1904). Kelly, an English writer. The author aims to give a complete historical setting to the story. Pharaoh, the last of the Shepherd Kings, and the patriarch Joseph are introduced.

Rameses II, 1340-1273 B.C.

Rameses
Thebes

Uarda (1877). Ebers, a German author. A romance of the time of Rameses II, giving mythology, customs, superstitions, history, archaeology, etc.

6th Century B. C.

Cambyzes
Sappho
Herodotus

An Egyptian Princess (1864). Ebers, a German author. A romance based on Herodotus. Historical characters such as Amasis, Cambyzes, and Sappho appear.

Punic Wars, 264-146 B.C.

Carthage
Hamilcar
Hannibal
Scipio

Salamambo (1862). Flaubert, a French author. A descriptive romance of ancient Carthage in the time of Hamilcar. The leader of the Mercenaries who besieges the city, steals the sacred veil of the Goddess of Carthage, and falls in love with Salamambo, the priestess.

Hannibal, 247-173 B. C.

Hannibal

A Young Carthaginian (1886). Henty, an English writer. Tells of Hannibal's Spanish campaign and follows him over the Alps and through Italy.

- Alexandria, about 350 A.D.** Hypatia (1853). Kingsley, an English author. Sets forth in romantic form the struggle in Egypt between Christian asceticism and Neoplatonism. Hypatia, the leading advocate of the latter. A portrayal of the characteristics of Jews, Greeks, and Romans.
- Hypatia
Asceticism
Anchorites
Alexandrian School
- Epicureanism** The Epicurean (1827). Thomas Moore, an Irish author. Comprises philosophy, religion, archæology, Egyptian life and customs in the early days of Christianity when the latter was in conflict with Greek paganism, particularly Epicureanism.
- Epicurus
- 7th Century, A. D.** The Bride of the Nile (1887). Ebers, a German writer. Chiefly a record of conflict of religion—pagan, Moslem and Christian.

GREECE

- Homer, 850 or 750 B. C.** The Iliad. Describes the siege of Troy. Legendary heroes (Achilles, Agamemnon, Menelaus, etc.) of the Greeks in conflict with Hector, Paris, Aeneas of the Trojans. Hector is slain by Achilles and dragged behind his chariot.
- Homer
Iliad
Troy
Achilles
- Age of Pericles (5th Century B.C.)** Pericles and Aspasia (1836). Landor, an English writer. The golden age of Athens is well set forth in both its social and intellectual aspects. Socrates, Alcibiades, Anaxagoras, Aristophanes, Sophocles, and others figure.
- Alcibiades
Anaxagoras
Aristophanes
Socrates
Sophocles
- Alexander, 356-323 B. C.** A Young Macedonian in the Army of Alexander the Great (1890). Church, an English writer. An account of Alexander and his campaigns, Battle of Arbela, Siege of Tyre, capture of Darius and occupation of Babylon.
- Alexander the Great
Macedonia
Tyre
Darius

ROME

- The Republic, 72-63 B. C.** Adventures of a Roman Boy (1885). Church, an English writer. Includes the revolt of Spartacus and various events of the period.
- Spartacus
Mithridates
Julius Caesar
Cleopatra
Rubicon
- A Friend of Caesar (1900).** Davis, an English writer. Adventures of the friend, and introducing Caesar and the events of his time.
- Second and Third Punic Wars (218-146 B. C.)** The Lion's Brood (1901). Osborne, an American author. This historical novel is a love romance of the days of Hannibal, when Rome was in conflict with Carthage.
- Hannibal
Scipio
- Virgil, 70-19 B. C. End of the Republic** The Aeneid. This epic sets forth the legendary founding of the Roman Kingdom, by the great deeds of the gods and heroes. The last twelve years of Virgil's life were the beginning of the empire.
- Aeneid
Dido

- The Empire, Tiberius, A. D. 14-37**
 Jesus Christ
 Jerusalem
 Jews
 Josephus
- Ben Hur (1880).** Lew Wallace, an American author. The scene is laid in the time of Christ, who cures the hero's mother and sister of leprosy. The hero becomes a Christian. It sets forth the conflict between Rome and Judaism.
- The Wandering Jew (1845).** Eugene Sue, a French author. The Jew's inhumanity to Christ at the time of the crucifixion condemned him to wander throughout the ages.
- Salathiel (1827).** Crolly, an Irish author. The Wandering Jew appearing in many historic scenes throughout the ages.
- Nero, 37-68**
 Nero
 Paul
- Quo Vadis (1895).** Sienkiewicz, a Polish author. Portrays the persecution of the Christians in Rome under Nero. Paul and Peter have a place in the story.
- Vespasian, 60-79**
 Vesuvius
 Pompeii
 Herculaneum
- The Last Days of Pompeii (1834).** Bulwer-Lytton, an English author. History, love, archæology and tragedy are set forth in the events of the destruction of Pompeii, 79 A. D.
- Honorius, 384-423**
 Alaric
 Goths
- Antonina (1852).** Collins, an English author. History, character, and religion are the elements of this romance of the time of Emperor Honorius. The contesting forces, the Romans and the Goths, Christianity and paganism, are portrayed.

ITALY

- 13th and 14th Centuries, A. D.**
 Guelphs and Ghibellines
- Margherita Pusterla (1838).** Cantu, an Italian author. This story distinguishes the conflicts between Ghibellines and Guelphs. The resulting tragedies of political intrigues and passion.
- Rienzi, 1313-54**
 Rienzi
- Rienzi, the Last of the Tribunes (1835).** Bulwer-Lytton, an English author. A dictator of Rome, of the Middle Ages, attempts to save the state against the warring houses of Orsini and Colonna, and is assassinated.
- The Medici Family. Period of Savonarola, 1452-98**
 Savonarola
 Machiavelli
- Romola (1863).** George Eliot, an English writer. The death of Savonarola, the Florentine religious reformer, is a part of this romance. The influence of the teachings of the reformer upon the heroine, as seen in her conduct following the death of her husband, a bigamist.
- Borgia**
- Ettore Fieramosca (1833).** D'Azeglio, an Italian author. Crimes instigated against ladies by Cesare Borgia result in an encounter between thirteen Italian and thirteen French knights.
- Period of the Borgias, 1480-1520**
 Borgia
 Savonarola
- Agnes of Sorrento (1861).** Mrs. Stowe, an American novelist. The heroine beloved by an adherent of Savonarola. He saves her from the Borgias, and while intending to devote her life to the church is persuaded by the friar to marry her lover.

Charles VIII, 1493-98

Borgia

Bayard, Chevalier de
Milan**16th Century, A. D.**

Milan

Venice

Victor Emmanuel II, 1860-71

Victor Emmanuel II

Garibaldi

Disraeli

Cavour

Papacy

Sforza (1889). Astor, an American author. In this historical romance appear Lodovico Sforza, the Duke of Milan, of whom the hero is a nephew, Cesare Borgia, and Chevalier Bayard.

Beatrice Cenci (1854). Guerrazzi, an Italian author. The foundation of this romance is the crime of Count Cenci against his daughter, the protector of whom slew the Count. It is a story of crime and tragedy.

The Betrothed Lovers (1825). Manzoni, an Italian novelist. Often called the greatest Italian romance. The scene is laid in Milan during the Spanish domination and is a vivid picture of the times.

Stradella (1909). Crawford, an English novelist. A romantic tale of Venice. The hero, a Sicilian composer, overcomes many obstacles in which is set forth the conditions of the period.

Lothair (1870). Benjamin Disraeli, an English author. The historic setting of this novel is the Italian Revolution under Garibaldi; also the tendency in the English Church toward Roman Catholicism. Several noted persons are represented—Cardinal Manning, Goldwin Smith, and others.

Eleanor (1900). Ward, an English novelist. A minute study of modern Italy introducing the struggle between Garibaldi and Cavour with the Papacy.

FRANCE

Charlemagne, 742-814

Charlemagne

First Crusade, 1096-99

Crusade

Charles VII, 1422-61

Joan of Arc

Charles the Bold, 1433-77

Burgundy

Charles the Bold

Louis XI, 1461-83

Burgundy

Henry II, 1547-59

Catherine de Medici

Calvin

Coligni

Passe-Rose (1889). Hardy, an American author. The events of this romantic idyl are placed in the time of Charlemagne.

Count Robert of Paris (1831). Scott, a Scotch author. The adventures of a knight of the First Crusade at the court of Alexius Comnenus of Constantinople.

A Monk of Fire (1895). Lang, a Scotch author. The experiences of a Scotchman in France during the time of Joan of Arc.

Anne of Gierstein (1829). Scott, a Scotch author. A young Englishman in Switzerland when at war with the Duke of Burgundy. After winning the love of the daughter of a Swiss noble he is sent on a mission involving the death of the Duke.

Quentin Durward (1823). Scott, a Scotch author. This is a study in history, love, and character. A Scotch soldier in the service of Louis XI when in trouble with the Duke of Burgundy.

Catherine de Medici (1841). Balzac, a French author. A romance setting forth the methods of a queen to bring everything under contribution to her dominion. Notable contemporaries—Francis II, Henry IV, Calvin, and others—appear in the story.

Guise
Huguenots

The Two Dianas (1846). Dumas, a French author. The hero, Count Montgomery, finds that Diana whom he loves already married by the order of Henry II, who is her father. The Count enters the religious war as a Huguenot.

The Page of the Duke of Savoy (1846). Dumas, a French author. The same historical setting as appears in the preceding story.

Henry III, 1574-89

Chicot the Jester (1845). Dumas, a French author. The adventures of Bussy d'Amboise in the court of Henry III. Falling in love with a married woman at the court, the husband puts assassins on his track. Before the adventurer is slain he slays the husband. The Holy League is the center of the plot to place on the throne the Duke of Anjou.

The Forty-Five Guardsmen (1846). Dumas, a French author. The acts of a band of guards under Henry III. The revenge of the mistress of Bussy d'Amboise on his murderers. The alliance of Henry III with Henry of Navarre and assassination of the former.

A Gentleman of France (1893). Weyman, an English author. Describing the romantic adventures of a poor nobleman attached to Henry III in his connections with Henry of Navarre.

Henry IV, 1594-1610

Henry IV
Charles IX
Bartholomew

Marguerite de Valois (1845). Dumas, a French author. History, intrigue, and tragedy are set forth, the central figure of political plots being Henry IV (Henry of Navarre) the husband of Marguerite. The great event is the massacre of St. Bartholomew.

Louis XIII, 1610-43

Louis XIII

Cinq-Mars (1826). Alfred de Vigny, a French author. This romance is founded on the conspiracy of the Marquis de Cinq-Mars in the reign of Louis XIII. Besides the king and queen, Anne of Austria, Richelieu, and other notables appear in the story.

Richelieu

The Three Musketeers (1844). Dumas, a French author. These comrades are loyal to the queen and outwit her enemy, Cardinal Richelieu, and the criminal woman, his agent, the wife of one of the musketeers. The story reaches the climax in her execution.

Louis XIV, 1643-1715

Mazarin
Louis XIV
Charles I

Twenty Years After (1845). Dumas, a French author. This is a continuation of the preceding story. Mazarin was the real power back of the king. He is assisted by the four musketeers in the insurrection of the Fronde. He sends them to England to aid Cromwell, but decides to save Charles I. In this they are foiled by the son of the agent of Richelieu. Mazarin has them imprisoned and in turn is imprisoned by them.

Charles II

The Vicomte de Bragelonne (1845). Dumas, a French author. This is a continuation of the preceding story. The musketeers assist in the restoration of Charles II of England. They are involved in the troubles between Fouquet and Louis XIV.

Belle-Rose (1850). Achard, a French author. The hero, who is low-born, enters the service of Louis XIV to win fame so as to gain the love of a high-born lady. This he accomplishes in the wars of 1667-1672.

A Nameless Nobleman (1881). Jane Austin, an American author. This story describes a French nobleman, deceived by the woman he loves and sickened with the plots of the court of Louis XIV. He comes to New England and marries a Quakeress. He refuses to return to the rank awaiting him in France.

The Mississippi Bubble (1903). Hough, an American writer. The life and love of John Law; his adventures in the new world, and the collapse of his bank.

Joseph Balsamo (1848). Dumas, a French author. Besides the historical aspect, charlatanism and hypnotism are elements in this story. The romance has for its basis the life of Cagliostro, the charlatan. Many prominent characters such as Swedenborg, Paul Jones, Rousseau, Voltaire, are introduced. The fate of Marie Antoinette is predicted by Balsamo.

Memoirs of a Physician (1848). Dumas, a French author. This is a continuation of "Joseph Balsamo." It closes with the death of Louis XV.

The Queen's Necklace (1848). Dumas, a French author. This is a continuation of the preceding story in which Balsamo is now known as Cagliostro. Marie Antoinette in the stealing of her diamond necklace is compromised by a shrewd adventuress. She is exonerated by the exposure of this woman.

Taking the Bastile (1853). Dumas, a French author. The beginning of the Revolution in which a farmer and his workmen are represented as taking the lead in the attack upon the Bastile.

Ninety-Three (1874). Hugo, a French writer. The scene of this tale of the French Revolution is laid in Brittany. It describes the struggle between the Republicans and Royalists.

The Countess of Charnay (1853). Dumas, a French author. Cagliostro is the leading spirit of a body of revolutionists, among whom are the Duke of Orleans and St. Just. Guillotin, Mirabeau, and Robespierre are introduced. The flight of Marie Antoinette from Versailles is described.

The Reds of the Midi (1896). Gras, a French author. This story gives a striking description of the Marseilles battalion entering Paris singing the Marseillaise, and then assisting in the storming of the Tuilleries.

Zanoni (1842). Bulwer-Lytton, an English author. Magic, love, history, and tragedy—all enter into this story of a Rosicrucian who sells supernatural power for love. In the Reign of Terror he manages to substitute himself for his wife and is guillotined. Robespierre, René Dumas, and Nicot appear in the story.

Law, John

Louis XV, 1715-74

Cagliostro
Louis XV
Rousseau
Swedenborg

Louis XVI, 1774-93

Cagliostro
Louis XVI
Marie Antoinette
Diamond Necklace
Turgot

The French Revolution, 1789-99

French Revolution
Bastile
Necker
Stäel, Madame de
Brittany
Hugo, Victor
Cagliostro
Robespierre
Mirabeau
Guillotin
Marat
Danton
Marseillaise
Tuilleries

Terror, Reign of

- Bastile** **A Tale of Two Cities (1860).** Dickens, an English author. This dramatic romance is based on the French Revolution. It describes the fall of the Bastile. The hero loves a woman whose affections are given to another, and when the latter is condemned to death the hero takes his place and is beheaded.
- Chouan** **The Chouans (1829).** Balzac, a French author. This story is based on the insurrection that broke out in the Vendee in 1793, during the Revolution. A woman engaged as a spy is sent to secure the capture of the man she loves. By the command of this man the soldiers of her lover are slain.
- Marie Antoinette** **The Chevalier de Maison-Rouge (1846).** Dumas, a French author. A conspirator of the Royalists attempts with the aid of a woman to rescue Marie Antoinette from prison. The conspiracy fails.
- Lafayette** **Andrée de Taverney (1855).** Dumas, a French author. The chief scene in this story is the execution of Louis XVI and Marie Antoinette. It brings together the leading characters of the Revolution: Robespierre, Marat, Lafayette, Condorset, Danton, Madame de Stael, Napoleon, and others.
- Louis XVI Dauphin** **Marie Antoinette and Her Son (1867).** Louise Mühlbach, a German author. A dramatic presentation of the execution of Louis XVI and the Queen. Also a romance of the escape of the young Dauphin, but not grounded on historical fact.
- Louis XVII** **Lazarre (1901).** Mary Catherwood, an American author. A romance of Louis XVII, the "Last Dauphin." Escaping from prison he flees to America during which time his reason is restored.
- Toussaint L'Ouverture Haiti** **The Hour and the Man (1840).** Harriet Martineau, an English author. The facts of this romance belong to the last days of the period of the Revolution. History, heroism and slavery are the leading elements. The hero is Toussaint L'Ouverture who achieved fame in the liberation of San Domingo. Napoleon has a place in the story.
- Napoleon I, 1797-1815**
Napoleon Bonaparte **A Bachelor's Establishment (1843).** Balzac, a French author. In the introduction are set forth events of the French Revolution and Napoleon's empire. In distinguishing types of character special interest attaches to two brothers, a gambler and an artist.
- The Man with the Broken Ear (1862).** About, a French author. A tale of a soldier of Napoleon. He is condemned to death as a spy. A German scientist operates on him and for three generations holds him in suspended animation, after which he returns to youth.
- Madame Sans-Gêne (1895).** Lepelletier, a French author. The fortunes of Napoleon's laundress, contemporaneous with those of Napoleon, until finally she became the Duchess of Dantzic.

Josephine

Picciola (1832). Xavier Saintine, a French author. A conspirator against Napoleon is imprisoned. He tenderly cares for a flower growing between the flagstones of his prison yards. The daughter of a fellow prisoner secures his pardon through Josephine, the wife of Napoleon. He is converted from agnosticism to a belief in God through the plant.

A Woman of Thirty (1832). Balzac, a French author. An ambitious woman, untrue to her husband and children suffers eventually for her sins. Napoleon appears in the story.

The Country Doctor (1833). Balzac, a French author. This story contains an idealization of Napoleon by one of his soldiers. A Paris doctor is rejected by a woman and taking up his residence in the country devotes himself to philanthropic work.

Tom Burke of Ourbs (1844). Ainsworth, an English author. An Irish soldier in the service of Napoleon. Among his adventures he falls in love with a maid to the Empress Josephine.

Privateer
Nelson, Horatio

Wing and Wing (1842). Cooper, an American author. The clever actions of a French privateer in the Napoleonic era. An American sailor and the captain are the central figures, while Nelson, the British admiral, appears in the story.

Waterloo
Wellington
Monachism
Blucher
Ney

The Chartreuse of Parma (1840). Stendhal, a French author. The story of a young Italian. After a series of adventures he enters the service under Napoleon and fights at Waterloo. He returns to Italy and enters the priesthood. Killing a man in self-defense he is imprisoned, loves the jailor's daughter and by her help escapes. She dies and he spends the rest of his life in a monastery.

Charles X, 1824-30
France

Les Misérables (1862). Hugo, a French author. Ethical problems, delineation of character, history, and crime enter into this great story. A convict had robbed a priest, is converted and becomes a benevolent man. A detective keeps on his track, but is saved by him in the Revolution of 1830. Having a high sense of duty the detective commits suicide out of gratitude to the man who saved him and whom duty required him to take.

Napoleon III, 1848-73
Gambetta

Numa Roumestau (1881). Daudet, a French author. The hero is a representation of the character of Gambetta. The book sets forth his political prestige in the south of France and characteristics in his attitude toward men and women.

Franco-Prussian War

Nana (1881). Emile Zola, a French author. A woman of low repute of the Parisian stage brings about ruin and havoc. The story ends with the beginning of the Franco-Prussian War.

Napoleon III

Sedan

Bismarck

Paris

Franco-Prussian War

The Downfall (1892). Zola, a French author. The pathetic experiences of a French soldier in the Franco-Prussian War.

The Parisians (1873). Bulwer-Lytton, an English author. A description of Parisian society and the political conditions of the Second Empire. A romance of the Franco-Prussian War.

Ashes of Empire (1899). Chambers, an American author. Two American journalists are in Paris during the siege. It is a love story of the two Americans and two Parisiennes.

SPAIN

Ruy Diaz, 1026-1099

Cid, The

Moors

The Cid (1252-1270). By unknown authors. This epic story distinguishes Ruy Diaz, the Champion of Bivar, the Christian leader against the Moors.

14th Century

Edward III

The White Company (1890). Doyle, a Scotch author. This historical romance belongs to the time of Edward III of England. The scene is laid in Spain where a band of English knights and archers fought for King Pedro. Edward, the Black Prince, and Du Guesclin appear in the story.

Ferdinand and Isabella, 1469-1516

Ferdinand V

Columbus

Mercedes of Castile (1841). Cooper, an American writer. A story of the time of Columbus, a companion of whom has a lady love in the Spanish court. He saves the life of an Indian princess and brings her to Spain. She becomes a Christian.

Granada

Moors

Torquemada

Leila, or the Siege of Granada (1838). Bulwer-Lytton, an English author. The historical basis of this romance is the Spanish conquest of the Moors. A beautiful Jewess is loved by Muza, the general of the Moorish king, Boabdil. She becomes a convert to Christianity through Isabella and Torquemada for which she suffers death at the hands of her father.

Period of the Inquisition, 1480-1834

Inquisition

Melmoth the Wanderer (1820). Maturia, an Irish author. This tale of a madman describes the horrors of the Inquisition. The devil had prophesied his insanity. He describes the worship of Kali, the Hindu goddess, and finally commits suicide.

Philip III, 1598-1621

Don Quixote (1605). Cervantes, a Spanish writer. A satire of chivalry, generally considered one of the greatest novels. It gives a splendid record of Spanish life at that time.

Philip IV, 1621-65

Spain

Gil Blas (1735). Alain-Réné Le Sage, a French author. This deals with the various classes of Spain during the first half of the 17th century, among whom the adventures occurred. Among other forms of rascality is that of securing for Philip IV a mistress.

Charles IV, 1788-1808

Spain

Peninsular War

Saragossa (1874). Galdos, a Spanish author. A story of the Napoleonic era describing the siege of Saragossa. For dealings with the enemy an officer commands his son to shoot a miser. The son, loving the miser's daughter, the heroine of the siege, refuses to do so.

PORTUGAL

John II, 1495-1521

Portugal

Gama, Vasco da

Camões

The Lusiad (1572). Luiz de Camões, a Portuguese author. An epic setting forth the adventures of Vasco de Gama.

Joseph I, 1750-1777

Portugal

Lisbon

Agnes Surriage (1886). Bynner, an American writer. The story of an Englishman who had come to Massachusetts and married a beautiful girl. A title awaits him in England. He returns with his wife whom his family refuse to receive. He accepts an office in Portugal and is in Lisbon at the time of the earthquake in 1750. His life is saved by his wife.

GERMANY

Charles V, 1500-1558

Charles V

Luther

Reformation

The Schönberg-Cotta Family (1862). Elizabeth Charles, an English author. A story of the Reformation in Germany from the records of a Protestant family. A description of Luther and his work.

The Heidenmauer (1832.) Irving, an American author. A tale of the time of Luther setting forth the contest between the German barons and monks. A drinking scene in Hartenburg is given.

Frederick the Great, 1740-86

Frederick II

Potsdam

Seven Years' War

Voltaire

Maria Theresa

Berlin and Sans Souci (1866). Louise Mühlbach German author. Frederick the Great in his palace at Potsdam is the center of this romance. Nobles and generals are introduced. Reference is made to the Seven Years' War, and to the friendship existing between the emperor and Voltaire.

Frederick William III, 1797-1840

Napoleon

Metternich

Tallyrand

In the Year '13 (1860). Reuter, a German author. This story describes how the peasants were burdened by the Napoleonic campaign in Germany.

The Conscript (1865). Erckmann, a German author. The horrors of Napoleon's campaign before he was sent into exile in Elba, as described by a conscript. A description is given of the battles of Lützen and Leipzig. Ney, Blucher, Metternich, and others appear in the story.

RUSSIA

Peter the Great, 1682-1725
Moscow
Catherine I

Catherine II, 1729-96
Poland
Kosciusko

Russia

Alexander I, 1801-25
Alexander I
Napoleon
Tolstoy
Holy Alliance

Alexander II, 1855-81
Alexander II
Russia
Nihilists

The Gunmaker of Moscow (1860). Cobb, an American author. In this melodramatic romance Peter the Great is introduced as a character.

Thaddeus of Warsaw (1803). Jane Porter, an English author. The story of a Polish noble who attempted, but failed, to free his country from the designs of Catherine of Russia. He makes a mistake in the person of his father, and discovering his father marries the woman of his choice.

The Captain's Daughter (1836). Pushkin, a Russian author. Through the pleas of his lady love to Catharine II, the latter saves a soldier condemned to death as a spy of the pretender Pugatcheff.

War and Peace (1865). Tolstoy, a Russian author. This romance distinguishes the various phases of Russian life during the first part of the nineteenth century. History in its philosophic aspect is the purpose of the author. Alexander I and Napoleon, with their generals, appear in the story.

Fathers and Sons (1862). Turgenieff, a Russian author. Politics and nihilism are set forth in the early periods of the struggle between the older and younger generations, distinguishing the types of each.

Smoke (1867). Turgenieff, a Russian author. The revolutionary tendency in Russia, in which theories are shaping into action. The author attacks the charlatans.

GREAT BRITAIN

Prehistoric
Cave Dwellers
Mammoth

Britain under the Romans
Boadicea
Druids

6th Century
Arthur
Vision of Sir Launfal
Idylls of the King

Geoffrey of Monmouth

Alfred the Great, 849-901
Alfred

The Story of Ab (1897). Waterloo, an American writer. A tale of the cave-man and his struggle with the mammoth and other monsters in the heavy forests bordering the Thames.

Britain's Greatness Foretold (1900). Trevelyan, an English author. It tells of the Roman subjugates, the Druids, and the romantic story of Boadicea.

The Story of King Arthur and His Knights (1903). Pyle, an American writer. A miscellaneous collection of the Arthurian legends, illustrated by the author.

Le Morte d' Arthur (1485). Malory, an English prose writer. A veritable storehouse of knightly tales.

King Alfred's Viking (1898). Whistler, an English writer. The struggle with the Norsemen.

William 1, 1066-87

England
 Harold II
 William I
 Hastings, Battle of
 Normans
 Bayeux Tapestry

Harold (1848). Bulwer-Lytton, an English author. A love romance based on the Norman Conquest under William the Conqueror. Harold is the titular hero, while Edward the Confessor, William the Conqueror, Earl Godwin and his sons are characters in the story.

Hereward the Wake (1866). Kingsley, an English author. This tale sets forth the heroic struggles of the English in resisting the Normans after the Battle of Hastings.

Richard I, 1189-99

Richard I
 Crusades
 Saladin
 Saracens

The Talisman (1825). Scott, a Scotch author. The hero is David, Prince Royal of Scotland. A tale of the Third Crusade in which Richard I participated. Saladin, the Saracen, appears in the story.

Richard Yea-and-Nay (1900). Hewlett, an English author. The character of Richard I, particularly in his dealings with women, is set forth. Adventures connected with the Crusades are related.

Robin Hood

Ivanhoe (1819). Scott, a Scotch author. A romance distinguishing deeds of chivalry in the time of Richard I and his regent John. One of the characters is Robin Hood, the outlaw.

Edward I, 1272-1307

Edward I
 Wallace, William
 Bruce, Robert
 Douglas
 Scotland

The Scottish Chiefs (1810). Jane Porter, an English author. The chief character is the hero of Scotland, Sir William Wallace. On the day of his execution he marries the heroine, who dies of grief on the day that Bruce is crowned.

Castle Dangerous (1831). Scott, a Scotch author. A story of the struggle between Edward I and Robert Bruce. Sir James Douglas and an English knight enter into single combat for the possession both of Douglas Castle and the lady-love of the Englishman. When the knight hears of the victory of Bruce he surrenders to Douglas.

Edward III, 1327-77

Chivalry

The White Company (1890). Conan Doyle, a Scotch author. This historical romance belongs to the time of Edward III. It sets forth the work of English knights and archers in the interests of King Pedro in Spain. Du Guesclin and the Black Prince appear in the story.

Wars of the Roses, 1455-85

Wars of the Roses

The Black Arrow (1888). Stevenson, a Scotch writer. This romance of the Wars of the Roses describes the adventures of an heiress who, disguised as a boy, runs away from the husband to be forced on her, but with whom she finally falls in love, he not suspecting her sex. Their adventures with a band of outlaws.

Edward IV, 1461-83

Edward IV
 Henry VI
 Margaret of Anjou
 Warwick

The Last of the Barons (1843). Bulwer-Lytton, an English author. This love romance is founded on the War of the Roses in the time of Edward IV. Invention enters into the story. Warwick, the King-maker, is the titular hero and is regarded favorably, while the King is represented as an evil influence.

Henry VIII, 1509-47

Henry VIII
Reformation

Henry the Eighth and His Court (1851). Louise Mühlbach, a German author. A representation of Henry and his sixth wife, Catherine Parr. The ladies and lords of the court appear in the story, and the Reformation in England is given some attention.

Mary I, 1553-58

Mary I
Grey, Lady Jane

The Tower of London (1840). Ainsworth, an English writer. This is a story of history and tragedy setting forth the execution of Lady Jane Grey.

Elizabeth, 1558-1603

Elizabeth
Reformation

The Monastery (1820). Scott, a Scotch author. A tale of history, magic, literature, and religion in Scotland during the reign of Elizabeth. The growing dominance of Reformation.

Leicester

Kenilworth (1821). Scott, a Scotch author. This story of history and tragedy portrays the murder of the wife of Leicester, brought about by her husband. The queen appears in the story.

Mary, Queen of Scots
Elizabeth
Armada

Dorothy Vernon of Hadden Hall (1902). Major, an American author. This love romance belongs to the time of Elizabeth, who, with Mary, Queen of Scots holds an important place.

Philip II of Spain
Gilbert, Sir Humphrey
Drake, Sir Francis

The Abbot (1820). Scott, a Scotch author. This is a sequel to "The Monastery." The imprisonment of Mary, Queen of Scots, is portrayed.

Westward Ho (1855). Kingsley, an English author. In the time of Elizabeth, giving the adventures of English sailors in South America. The climax is the defeat of the Spanish Armada in 1588.

James I, 1603-25

James I

The Fortunes of Nigel (1822). Scott, a Scotch author. The scenes are laid in the time of James I, who, with his courtiers, appears in the story. It sets forth the career of George Henot who became the King's banker.

Charles I, 1625-46

Charles I
Puritans
Cavaliers

The Splendid Spur (1889). Quiller-Couch, an English author. This story deals with the period of Charles and the Civil War. A student who is loyal to the king is mixed up with the revolution. He escapes from the Roundheads with the girl he loves disguised as a boy.

Laud, William

John Inglesant (1881). Shorthouse, an English author. The story of an adherent of Archbishop Laud. Becoming a Catholic he participates in the insurrection of Molinos. His philosophy is of the mystical type.

Gustavus II (Adolphus)

A Legend of Montrose (1819). Scott, a Scotch author. The tale of a Scotchman who had been in the service of Gustavus Adolphus of Sweden. He enlists under the Earl of Montrose in the uprising against Charles I. He is taken prisoner but escapes with a Highland chief.

Henry Masterton (1832). James, an English author. A story of love and adventure in England and France in the time of the revolution. Iveton, Cromwell's general, appears in the story.

Mazarin
Cromwell

Charles II, 1660-85

Charles II
Condé
Colbert

Monk, George

Cromwell
Charles II

Covenanters
Monmouth
James
Scotland

James II, 1685-88

Monmouth
James
Jeffreys, George

Pretender James, 1688-1766
Stuart

Queen Anne, 1702-14

George I, 1714-27

George I
Rob Roy

Twenty Years After (1845). Dumas, a French author. The four musketeers are sent by Mazarin, the power behind Louis XIV, to England to assist Cromwell. On the contrary, they determine to save Charles I from being executed. In this they fail through the son of the agent of Richelieu. The story is a continuation of "The Three Musketeers."

Viscomte de Bragelonne (1845). Dumas, a French author. The story of the four musketeers in assisting the restoration of Charles II to the throne of England. Condé, Colbert, Queen Anne of Austria, and other notable personages appear in the story.

Peveril of the Peak (1823). Scott, a Scotch author. The plot of the Roman Catholics to murder Charles II is the basis of this story. By these events two lovers are separated but are brought together again by the King.

Woodstock (1826). Scott, a Scotch author. This story relates the revolutionary events after the Battle of Worcester, when Charles II was defeated by Cromwell. A loyal subject impersonating the King saves him from capture. Cromwell condemns the subject to death but afterwards spares him.

Old Mortality (1816). Scott, a Scotch author. This is a story of the Covenanters from 1679 to 1690, the troubles extending through the reign of James II. The interest centers about the leader of the Covenanters. The Duke of Monmouth and Claverhouse appear in the story.

Lorna Doone (1869). Blackmore, an English author. The hero has a part in the rebellion of Monmouth. In this romance English life and scenery are portrayed. Judge Jeffreys appears in the story.

Henry Esmond (1852). Thackeray, an English author. A romance of the time of the Pretender James. The hero is taken into the home of an uncle. He finally marries the daughter and they take up their residence in Virginia.

The Black Dwarf (1816). Scott, a Scotch author. A story of history, character, and love, during the war of the Pretender James. The hero, a deformed person, saves a girl from an undesirable marriage that was calculated to save her father.

Devereux (1829). Bulwer-Lytton, an English author. Bolingbroke, a character in the story, was made prime minister by Queen Anne. This is a story of bad blood between two brothers. A third brother is brought under the influence of a priest interested in the restoration of the Stuarts.

Rob Roy (1817). Scott, a Scotch author. An historical narrative of the chief of the MacGregor clan in the time of the Revolution of 1715. Scottish characteristics are distinguished and a romance is wrought out.

- Pretender Charles, 1720-88**
Stuart
Waverly (1814). Scott, a Scotch author. An English officer has adventures among Scotch Highlanders in the war with the Pretender Charles Stuart.
- Red Gauntlet (1824).** Scott, a Scotch author. In this tale is set forth the loyalty of a family to the Pretender Charles.
- George II, 1727-60**
George II
Stuart
The Two Admirals (1842). Cooper, an American author. A story of the time when France was aiding the cause of the Pretender Charles during the reign of George II. An admiral in sympathy with the Stuart cause finally renders assistance to another admiral battling with the French, and loses his life.
- Kidnapped (1886).** Stevenson, a Scotch author. An uncle has his nephew, an heir, kidnapped to be sent to the Carolinas. The ship is wrecked on the Island of Mull. He escapes with a Highlander made an outlaw because of his part in the Revolution of 1745. They finally return and the uncle gets his deserts.
- George III, 1760-1820**
George III
Revolution (American)
Washington
Wolfe
The Virginians (1859). Thackeray, an English author. This is a sequel to "Henry Esmond." Two grandsons of the latter return to England. The Revolutionary War breaks out in America and they take opposite sides, but without the loss of good friendship. Washington and Wolfe appear in the story.
- Barnaby Rudge (1841).** Dickens, an English author. This story is based on the riots of 1780, called "No Popery" riots. In the person of one of the characters appears the character of Lord Chesterfield.
- St. Ives (1894).** Stevenson, a Scotch author. The Napoleonic era. Soldiers of Napoleon imprisoned in Edinburgh sell things to a girl who is insulted by one of them. In a duel with an officer he is killed.
- War of 1812**
Tom Cringle's Log (1833). Michael Scott, a Scotch author. The story of the log of a British sailor during the War of 1812.
- Wellington**
Charles O'Malley (1841). Lever, an Irish author. A reckless young Irishman is in the service of Wellington in Spain, and also at Waterloo. He is made a prisoner and is brought before Napoleon.
- Waterloo, Battle of**
Vanity Fair (1848). Thackeray, an English author. This is chiefly a character study. The experiences of an adventuress as she mingles with English aristocracy. The leading event is the Battle of Waterloo.
- George IV, 1820-1830**
George IV
The Heart of Midlothian (1818). Scott, a Scotch author. A story of history, character, and bravery. A girl is sentenced to death for infanticide. Her sister procures a pardon for her by walking to London and appealing to Queen Caroline. In this she is aided by the Duke of Argyle.

Disraeli

Vivian Grey (1826). Benjamin Disraeli, an English author. Love and politics combine in the career of the hero who is a portrait of the author. Under assumed names Wellington, Mrs. Coutts, Hook, and others are represented.

Queen Victoria, 1837-1901

Victoria

Bright, John

Gladstone

Rothschild

Coningsby (1844). Benjamin Disraeli, an English author. A young statesman is engaged in the betterment of social conditions. Noblewomen love and support him, while men in leading political positions both assist and oppose him. Under assumed names appear such men as Gladstone, Bright, Rothschild, and others.

Sketches by Boz, Pickwick Papers, Oliver Twist, Nicholas Nickleby, Old Curiosity Shop, Martin Chuzzlewit, Dombey and Son, David Copperfield, Bleak House, Hard Times, Little Dorrit, Great Expectations, Our Mutual Friend, Edwin Drood (1836-70.) Dickens, an English novelist. This series of novels is the truest portrayal of the middle and lower classes of society during the early Victorian period.

Sybil (1845). Benjamin Disraeli, an English author. Based on the events of the industrial conditions in England from 1837-1842. The hero, a member of Parliament, heads a movement for the improvement of these conditions in behalf of workingmen.

Episcopal Church
Garibaldi

Lothair (1870). Benjamin Disraeli, an English author. This novel brings out the tendency toward Roman Catholicism in the Anglican Church and the revolution under Garibaldi in Italy. Marquis of Bute is represented in the character of the hero.

Chartists

Alton Locke (1850). Kingsley, an English author. The story of a poet, who, during the Chartist agitation, took the part of workingmen with the result that he was imprisoned and remained in jail until his death.

Crimea

Two Years Ago (1857). Kingsley, an English author. The events of this story fall in the period of the Crimean War. The hero rescues a girl from slavery in Louisiana. He is wrecked near England and is robbed of his money, the thief proving to be the mother of the woman who saves him from the wreck. He enters the service in the Crimean War.

India
Havelock
Sepoy
Lucknow

On the Face of the Waters (1896). Flora Annie Steel, an English author. A story of the Sepoy Rebellion, setting forth the remarkable adventures and escapes of English people.

Disraeli
Palmerston

Endymion (1880). Benjamin Disraeli, an English author. This romance is an autobiography giving the author's political history in being elected to the premiership. Under fictitious names many public characters appear, including Napoleon III, Bismarck, Dickens and Thackeray.

Egypt
Mahdi
Gordon, Charles G
Sudan

The Light that Failed (1890). Kipling, an English author. The story of an artist and a journalist who became comrades in the Sudanese War. After their return to England the artist spoils the relations between his model and the journalist. The artist becomes blind, and returning to the Sudan is killed in a fight into which he casts himself.

UNITED STATES

Colonial Period

Virginia
Smith, Captain John
Jamestown
Pocahontas

To Have and to Hold (1890). Mary Johnston, an American author. During the settlement of Virginia. The hero's adventures with Indians and pirates.

Nick of the Woods (1837). Bird, an American author. This describes Indian warfare and pioneer life in America. An insane Quaker kills Indians, believing he is directed by a spirit.

South Carolina

The Yemassee (1835). Simms, an American author. The struggle with Indians and Spaniards, by Governor Craven, in saving South Carolina.

Atala (1802). Chateaubriand, a French author. A romance of two Indian lovers. One of them when dying pleads that the other become a Christian. He does and suffers martyrdom.

Indians

The Deerslayer (1841). Cooper, an American author. The first of the "Leatherstocking Tales." A pioneer family is saved from the Iroquois by the hero and Chingachgook.

The Pioneers (1822). Cooper, an American author. The hero and the Mohican chief, Chingachgook, protect the owner of an estate. One is imprisoned and the other is slain.

King Noonett (1896). Stimson, an American author. An English royalist becomes an Indian chief, in New England, having fled in disguise with his daughter. Two lovers of the girl follow them and fight in King Philip's War. The Englishman is Philip's ally.

The Last of the Mohicans (1826). Cooper, an American author. The pioneer, Leatherstocking, Chingachgook and Uncas perform remarkable feats in the war of 1756, taking a white party through Indian country. Striving to save one of the women, Uncas is killed.

Fremont
Leatherstocking

The Pathfinder (1840). Cooper, an American author. Leatherstocking is in love with a lady. To aid her the hero and Chingachgook accomplish great things in the war of 1756.

Piracy

The Water Witch (1830). Cooper, an American author. A tale of colonial days in which a British cruiser chases a pirate and is attacked by two French vessels. The pirate then aids the cruiser.

A Bow of Orange Ribbon (1886). Amelia Barr, an American author. A story of Colonial times in which the parents of a Knickerbocker girl object to her English lover.

The Red Rover (1827). Cooper, an American author. A romance of the sea at the close of the colonial period. A slaver and pirate, admiring the bravery of a captain, saves him from his crew.

Revolutionary Period

Lexington
Concord

Lionel Lincoln (1825). Cooper, an American author. The scene of this romance is laid in Boston at the opening of the Revolutionary War. A Continental simpleton saves the life of the hero, a British soldier, at Lexington and Concord.

Wyandotte (1843). Cooper, an American author. During the Revolution, Indians attack a white family. A friendly Indian saves those who believe in him while he slays one of them who insulted him.

Brant, Joseph
Oriskany

Greyslayer (1840). Hoffmann, an American author. This romance is based on the conflict between American Revolutionists and Joseph Brant, Chief of the Mohawks. Young women are carried off and rescued and the hero is tried for the murder of a man who is not dead.

The Spy (1821). Cooper, an American author. A romance intertwined with the events of the Revolutionary War. For the sake of his country a spy of General Washington is willing to suffer the disgrace of treason.

Ticonderoga

Satanstoe (1844). Cooper, an American author. Two men love the same woman during the War of the Revolution. The description of the action against Ticonderoga is given.

Allen, Ethan
Arnold, Benedict
Vermont

The Green Mountain Boys (1840). Thompson; an American author. A romance based on the dispute over Vermont between New York and New Hampshire, and the Revolution. Ethan Allen and Benedict Arnold figure in the story.

Tory
Whigs

Horseshoe Robinson (1835). Kennedy, an American author. A story of the conflict in Virginia and the Carolinas between Whigs and Tories during the Revolution.

Septimius Felton (1871). Hawthorne, an American author. An American Revolutionist kills a British soldier. Before the latter dies he gives the American a recipe for an elixir of life. The sweetheart of the Britisher uses the elixir to revenge the death of her lover, but coming to love the American, she takes the poison herself.

Jones, John Paul

The Pilot (1823). Cooper, an American author. A maritime romance, one of the leading characters of which is the old coxswain. Paul Jones of naval fame in the American Revolution is represented in the titular character.

Walpole, Horace

Richard Carvel (1899). Churchill, an American author. This romance, including English and American history, begins prior to and continues during the Revolution. As the hero travels about he meets such men of distinction as Paul Jones, Fox, Walpole.

Washington, 1789-97
Shay's Rebellion
Burr

The Duke of Stockbridge (1900). Bellamy, an American author. The historic setting of this romance is Shay's Rebellion.

The Minister's Wooing (1859). Harriet Beecher Stowe, an American author. The scene is laid in New England in the closing years of the eighteenth century. A young man is reported to have died. His mother charges God with cruelty, and his betrothed agrees to marry the preacher, although not loving him. The young man returns and the preacher surrenders to him his sweetheart. Aaron Burr is a leading character.

Adams, 1797-1801
XYZ Papers

Afloat and Ashore (1844). Cooper, an American author. A story of sea life and piracy. The period is that of the war with France following the Revolution.

Lawrie Todd (1832). Galt, a Scotch author. About 1800 a Scotchman settles in the Genesee valley in the state of New York. He builds up a nail-making industry. In appearance he is diminutive. He marries a young widow and with her goes to Scotland.

Jefferson, 1801-09
Creole
Louisiana Purchase

The Grandissimes (1800). Cable, an American author. Creole life is strongly presented. A story of New Orleans at the time of the Louisiana purchase.

Madison, 1809-17
Bainbridge
Preble
Perry, O. H.
Decatur

Miles Wellingford (1844). Cooper, an American author. This is the sequel of "Afloat and Ashore." (See Adams). Naval warfare during the War of 1812.

The Oak Openings (1848). Cooper, an American author. The scene is laid in Michigan at the opening of the War of 1812. The leading character, a bee-hunter, befriends an Indian who saves him and his family from death at the hands of the savages.

Van Buren, 1837-41
Transcendentalism
Ossoli

The Blithedale Romance (1852). Hawthorne, an American author. This is a love romance comprising history, philosophy, and character. It deals with the Transcendentalists and the community farm founded by them. Margaret Fuller and others of them appear in the story.

Harrison-Tyler, 1841-45

The Redskins (1846). Cooper, an American author. The historical setting is the anti-rent agitation in the state of New York when landlords were attacked by squatters disguised as Indians.

Lincoln, 1861-65
Slave
Emancipation Proclamation

Uncle Tom's Cabin (1852). Harriet Beecher Stowe, an American author. A vivid description of the evils of negro slavery in America, portraying torture, hunting fugitives, separation of families, etc.

- Civil War**
- Dorothy South (1902).** Eggleston, an American author. A woman leaves her husband and daughter for the stage, but, losing her beauty, is reduced to poverty. Her daughter in Virginia studies chemistry under her guardian, a doctor. She meets her mother in Europe where she is pursuing her studies. Civil war breaks out in America and both return, the mother as a nurse to the other to aid her guardian, now her husband.
- Bull Run, Battle of
Greeley, Horace**
- Eben Holden (1900).** Bacheller, an American author. The story of a journalist assisted by a woman of generous impulses. Horace Greeley appears as one of the characters. The Battle of Bull Run is one of the events.
- Beecher, Henry Ward**
- Norwood (1867).** Beecher, an American preacher and author. Country life in a college town of New England. In this romance the struggle between love and patriotism bearing on the Civil War is presented.
- Slave**
- Neighbor Jackwood (1857).** Trowbridge, an American author. A fugitive slave girl is hidden from her pursuers by a Vermont farmer, who aids her and her lover, a young man whose mother opposes the match.
- Secession**
- Cudjo's Cave (1863).** Trowbridge, an American author. A romance of the Civil War describing the assaults of Tennessee Secessionists upon Union men. They find refuge in a cave, the negroes defending them until they can escape to the North.
- Waiting for the Verdict. (1867).** Rebecca Harding Davis, an American author. A story of heroism during the Civil War. A mulatto doctor, who stands high in his profession, abandons his love for a white girl and labors among the negroes. He is assassinated.
- Period of Reconstruction**
- Reconstruction**
- Ku Klux Klan**
- Carpet-Baggers**
- A Fool's Errand (1880).** Tourgee, an American author. History and politics enter into this story of a "carpetbagger" and his family in the period of the Reconstruction.
- Gabriel Tolliver (1902).** Harris, an American author. A story of the South in the days of the Reconstruction, in which children play a special part. The hero and heroine are strongly presented.
- Hayes, 1877-81**
- Tilden, Samuel J.**
- A Modern Instance (1883).** Howells, an American author. Ethics, journalism, and politics combine in this story of a true woman who is married to a disreputable newspaper man but is loved by a good man. The campaign of Hayes and Tilden is given a place in the story.
- Cleveland, 1893-97**
- Strike**
- The Honorable Peter Sterling (1894).** Ford, an American author. Politics, labor and social reform are the elements. Grover Cleveland forms the basis of the character study of a politician. He labors to improve the condition of the poor. He puts down a strike and by his heroism wins the heart of a woman.

DRAWING

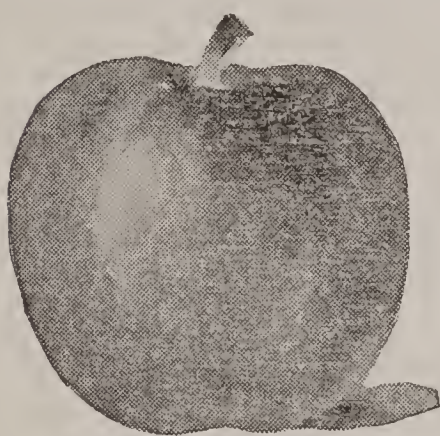
Drawing, as a branch of study in our public schools, has come to stand for much more than instruction in the delineation of form. Drawing, today, is but one chapter in the great volume which is being compiled by our public school courses of study. We may name this volume "Art Education," and we shall find that it contains many chapters besides Drawing,—such as Painting, Design, Manual Training, Shop Work, The Crafts, Domestic Art, Industrial Education, etc. The beginning of the compilation, so far as American schools are concerned, was back in the seventies, when the state of Massachusetts sought to improve the industrial output of her factories by providing free instruction in drawing, not only for children but for all men and women in towns of more than five thousand inhabitants. This was the first organized effort to incorporate any kind of industrial or artistic training into the American scheme of public education. A normal school for the training of teachers of drawing was established in Boston in 1873, and the introduction of so-called industrial drawing became general, not only in Massachusetts, but throughout the country.

OBJECTS

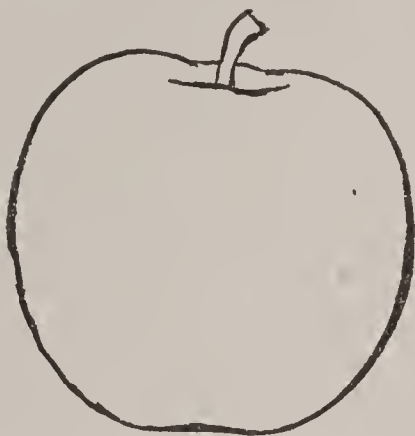
But the industrial drawing of those days had little of the spirit of art within it. The beginner drew from flat copies, and the "drawing-book" resulted,—a half-blank book with the printed copy on one page and the space for the child's imitation of that copy on the page opposite. Rapidly developing educational philosophy soon pointed the way to another kind of drawing, the drawing that expressed some thought of the child. Such expression, however crude, was more valuable as a result than the copied picture. Drawing thus became a real language, and so it attained a much higher educational level. As a study, it was much more valuable to the children than the prescribed and to them meaningless flat copies that had constituted the course of study in drawing at first. Drawing was now looked upon as a means of pictorial expression only. The paint-box came into general use, and the industrial ends for which the study was introduced were for a time forgotten in the wave of "free expression."

Then the pendulum swung once more to the industrial side, and the movement for manual training and the crafts was felt. We find ourselves facing today an insistent demand for a more practical system of education; one that shall appeal not so much to those individuals who desire to continue their schooling in colleges, as to the common, everyday citizen, who must earn his living by the sweat of his brow. This movement for industrial education bids fair to result in a complete readjustment of school curricula, and the course for art study is affected as much as any other course. Indeed, the study of drawing, being concerned primarily with the hand, responds the more readily to the demand for industrial training, and the teacher of art sees in this agitation for more definite and tangible results, a new and better opportunity for recognition. For the up-to-date drawing teacher knows that it is not the business of public school art instruction to turn out artists, craftsmen, or professional workers of any kind, but to so develop the powers of discrimination, selection, and judgment that the habit and kind of thinking thus fostered will find expression in every act of the individual's life.

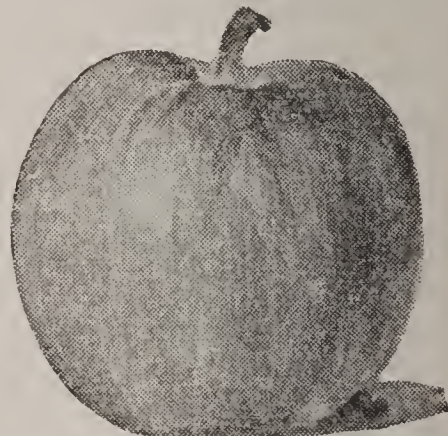
It is true that art instruction must teach children to draw. It must do this for the same reason that instruction in reading must teach children to recognize and form written words, to combine words in sentences, and to compose sentences in paragraphs, for the expression of thought. Drawing is expression, just as written language is expression. But ability to draw is not the only result for which art instruction should aim. There is another result as much greater in value to the average man as the ability to appreciate good literature is greater than skill in grammatical analysis,—and that result is the ability to perceive and enjoy beauty wherever beauty is manifested. It is in its power to stimulate good taste, and to open the “gate of appreciation,” that art education justifies the time and money spent upon it. If we can penetrate to the homes of the children and establish there the refining influences of quiet colors, good proportions, simple, sincere architecture, and harmonious and appropriate furnishings, we shall have little need of reformatories and penitentiaries.



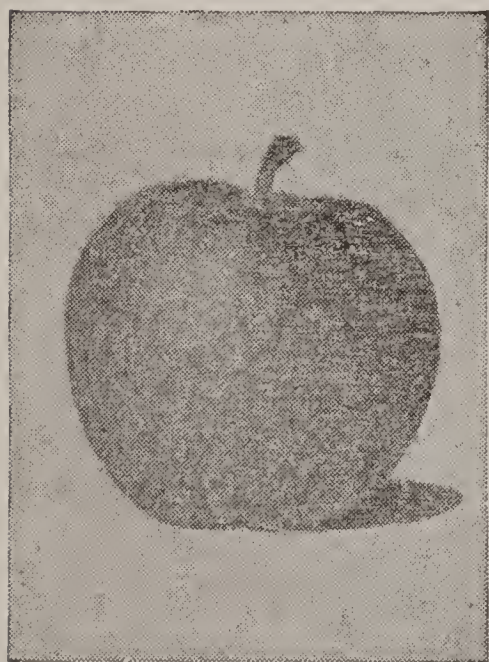
WATER COLOR
1



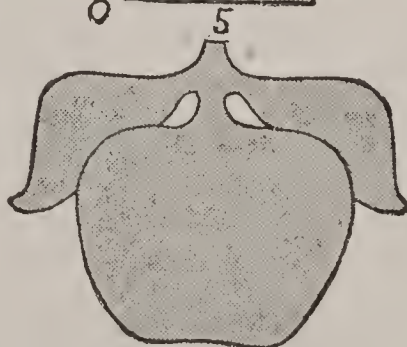
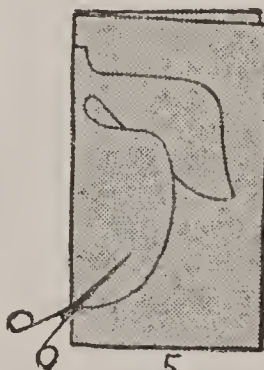
PENCIL OUTLINE
3



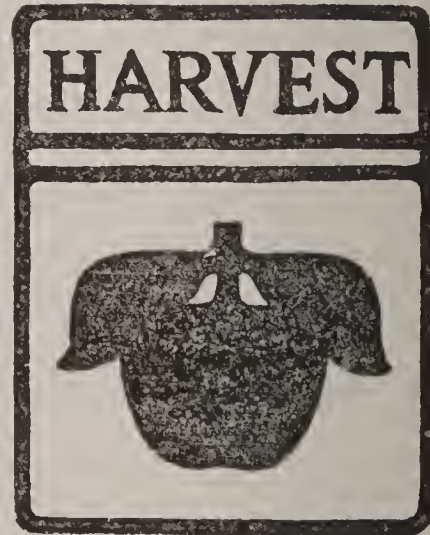
PENCIL RENDERING
4



COLORED CRAYON ON
TINTED PAPER
2



DESIGN THROUGH
PAPER CUTTING
6



DECORATIVE DESIGN
7

The illustrations herewith and the accompanying text will indicate a general course of art instruction for the elementary grades, planned with the definite aim of establishing an understanding of the relationship that should exist between these exercises and the problems that are sure to present themselves in the home and in the varied occupations of community life.

EDUCATIONAL VALUE

The educational value of the subject of art education rests in a large measure in the balance maintained between drawing and design. To be able to draw, the observation must be keen. Facility of hand is also essential because the student

must set down with his hand what his eye has seen. But design makes him think. We must cease to consider design merely as a scheme for decorating objects. We must go back to the original meaning of design, as the dictionary defines it—"to mark out for a purpose." So we must teach children to use their knowledge of form, proportion, and color in "marked out intention." They must use their knowledge of the leaf and flower, which they rightfully delight to draw and paint, as part of an equipment for mental gymnastics and discipline.

Let us illustrate by some drawings: Fig. 1 is a realistic representation of an apple, and might well form the basis of one of the first lessons in form study and drawing for a child in the first year of school. It is beautiful and bright in color, it belongs to the child-world of interests, and it is of the simplest possible contour and form. The child learns how to study its proportions, color, etc., how to manipulate the mediums of water color, colored crayon, or lead pencil, with which, according to his age and ability, he takes the first step in his art-educational discipline, i. e., the representation of what he sees. After this first step is accomplished, instead of repeating the representation of this or of similar objects until his interest in mere representation has flagged, he is asked to take the first step in design; he studies the apple as a shape, separating this consideration from all other considerations, such as color and roundness.

As the cutting of the form from paper helps to emphasize the idea of shape, as distinguished from modeling (roundness) and color, he is given scissors and paper, with which he is asked to express his ideas. If, at a later stage, he desires a symmetrical unit, he traces the half-shape on a piece of folded paper, the crease or fold forming the axis of the unit (Fig. 5). Cutting out this half-shape, he has a perfectly balanced unit (Fig. 6). This becomes material which can be used in many definite and tangible ways. Fig. 7 shows that he has chosen in this instance to use his unit as a decoration for a book-cover. In the adjustment of the unit to the space, in the consideration of its relationship to the other elements of the cover—the title, the color to be used, etc.—the mind plays the most important part. Such exercise of judgment, discrimination, and choice seldom takes place with problems in mere representation.

DESIGN

In the next group of illustrations, the ultimate end of design is even more plainly shown. Fig. 1 is a drawing of the leaf of the hepatica, such as might profitably be studied by a third or fourth grade pupil. It is a faithful representation of one of nature's beautiful manifestations. Fig. 2 shows again a simple way of conventionalizing the naturalistic shape of the leaf. Fig. 3 is the symmetrical unit, which in Fig. 4 has been spaced to form a border. (By cutting out the unit, it may be traced around to form a repetition of units that are exactly alike.) In this spacing the mind has been at work, estimating the distances between units, so that they did not crowd each other on the one hand, nor appear so far apart as to lose unity on the other hand. In Fig. 5 marginal lines have been added, with a certain modification of the line meeting the ends of the stems. This modification was in response to a demand of the mind for greater variety and interest in the arrangement. By this treatment, simple as it is, a new series of shapes appear (see 1, 2, and 3 in Fig. 5), differing from the leaf shapes, but harmonious with them. Such shapes as these we call background shapes, because they appear on the space within our border which we call the background. They are not consciously drawn as the leaf shapes are, but they result as an evidence of right adjustment of the consciously employed unit. Fig. 6 shows how these background shapes have been still further enriched by the addition of a triangular form. The left end of the illustration shows how the addition of a tone to one series of shapes adds still further interest to the design. Not all of these steps can be taken in one grade in school, perhaps. But if a definite aim as to

the ultimate use of a knowledge of nature forms be kept in mind, our courses of art study will no longer deserve the criticism, often made in the past, that the work laid out for all grades is alike; that in every grade there is drawing from nature and from objects, with very little consideration of the changing interests and developing abilities of children.

In the group of illustrations following, the steps indicated in Figs. 1, 2, 3, and 4 might wisely be given in a fourth or fifth grade; while such added problems as Figs. 5 and 6 represent, might be apportioned to the sixth grade. For the grammar grades, along this line of adapting a knowledge of nature forms to some use, there is a delightful series of problems shown in the next group. Here a stencil has been prepared, for the purpose of repeating a unit over a surface. Fig. 1 shows the half-

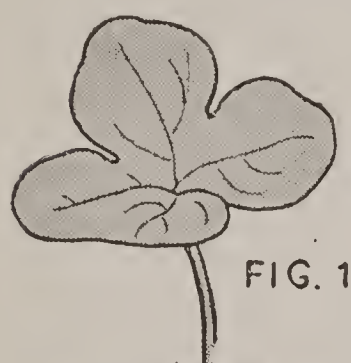


FIG. 1

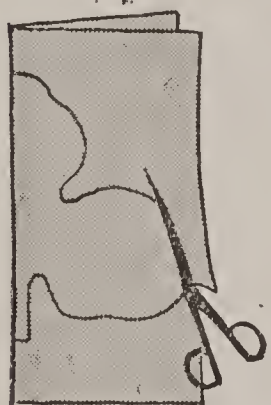


FIG. 2

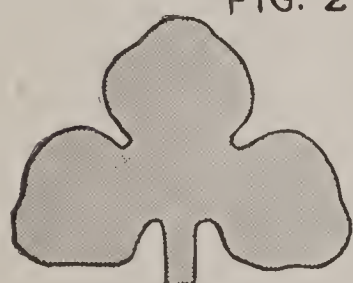


FIG. 3

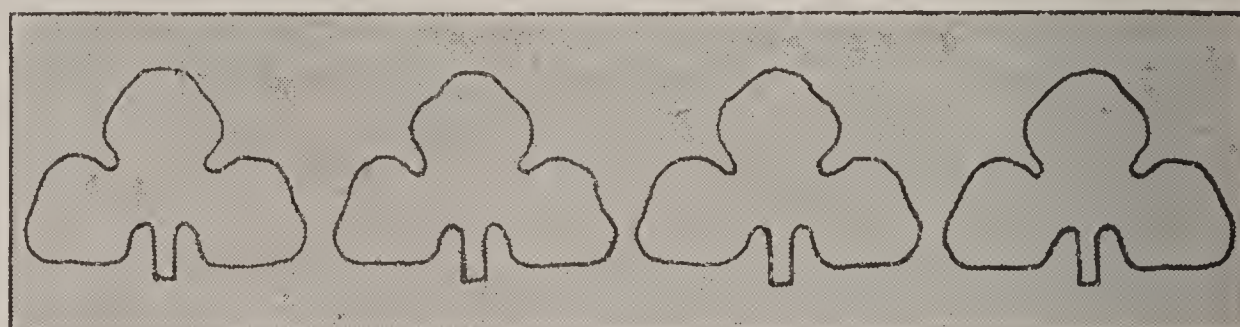


FIG. 4

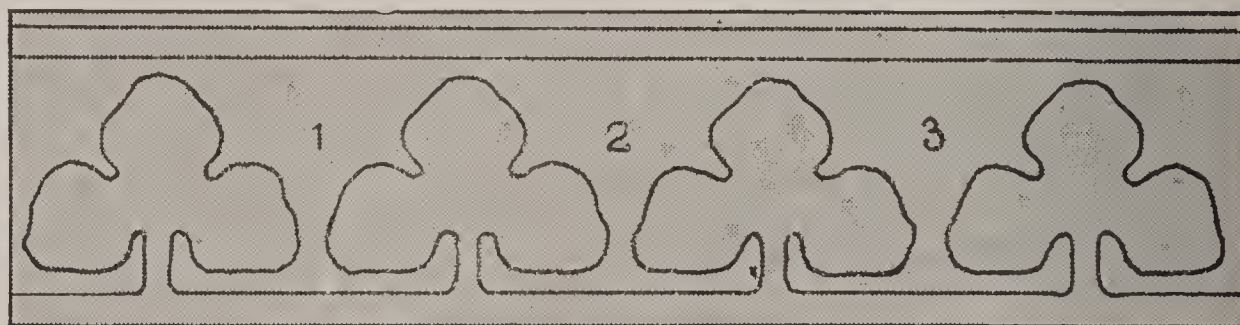


FIG. 5

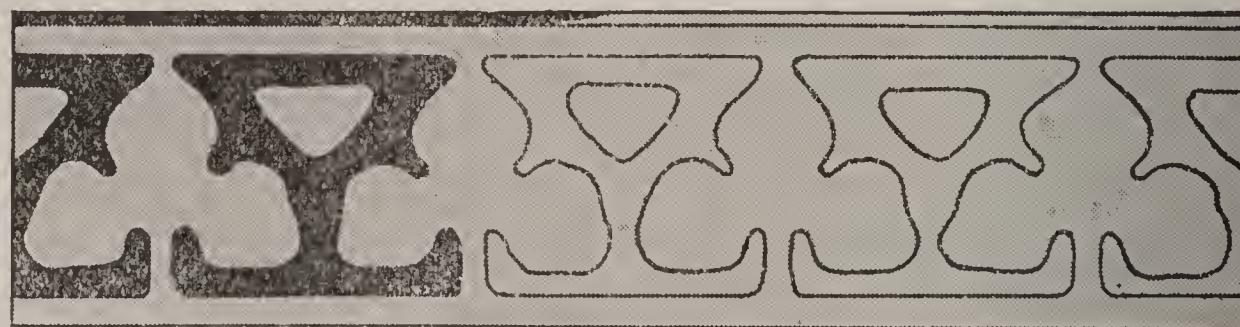


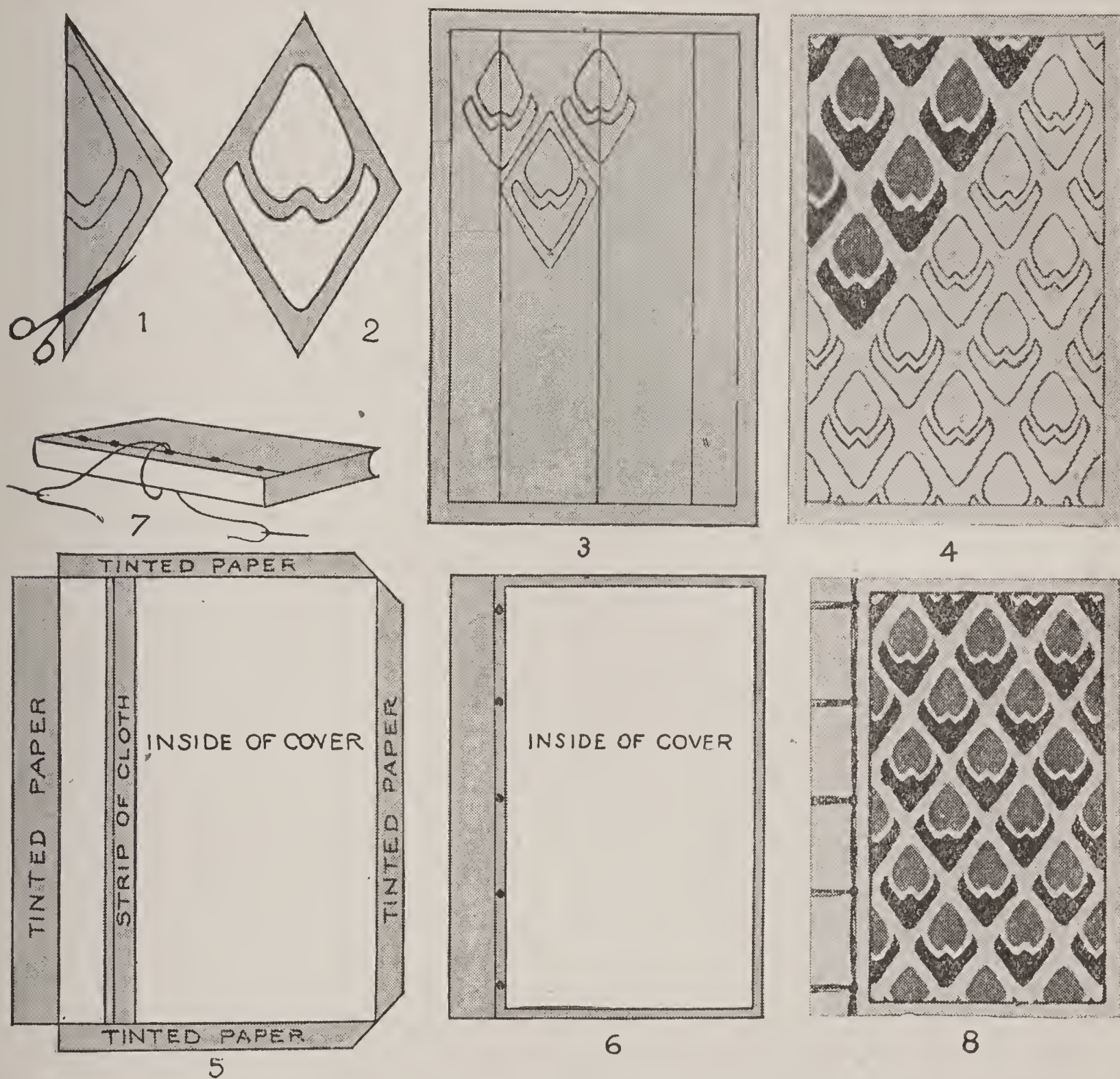
FIG. 6

unit (in this case a group of shapes) drawn on a diamond-shaped piece of paper, folded in the middle. Fig. 2 shows the cut-out stencil, which could be made more practical if dipped in melted paraffine. Fig. 3 shows the vertical lines lightly drawn on the surface to be decorated, and the method of repeating the unit. Fig. 4 shows the completed pattern, finished in two tones. Such a surface pattern is well adapted to the decoration of a note-book cover, the construction of which is shown in Figs. 5, 6, 7, and 8.

One of the "side lines" of immediate and practical use in the schoolroom is the use of lettering. When lettering is combined with simple decorative elements like those shown in the next group of illustrations, many and varied are the possible arrangements in the planning of note-books, window signs, poster announcements, etc. The use of a background of gray manila paper, squared in quarter-inch spaces, enables us to put such problems as these as low as the fourth and fifth grades.

The easiest alphabet to make on this squared paper is illustrated at the head of the group of illustrations. When the general form and proportions of these block letters have been mastered, the pupils may work out an alphabet in which they fill

but half the squares, and finally they may use the single line, within a diagram of squares. When this amount of experience has been gained they easily take the next step: to draw the desired arrangement on squared paper, trace it off on tinted paper, and thus use any color scheme preferred. But for elementary practice the gray manila squared paper used as the actual background for the finished card or cover, serves the purpose in an admirable way. The decorative units can be drawn with colored and black crayons.



CONSTRUCTION

Another phase of art education that must not be overlooked is its relation to construction. In the primary grades the constructive interests of children must be considered. Even paper furniture justifies itself, when the product satisfies the child, and at the same time affords the necessary mental discipline. Mere suggestions of certain directions which this work may take are given in the next group of sketches. Fig. 1 is the pattern for the stick candy-holder, shown in its finished state in Fig. 2. Design has entered into its construction, in the adaptation of material, proportion, etc., to specific use; design has also entered into the decoration, in the symmetrical arrangement of the holly leaf and berry. The whole thing, from the preparation of the flat pattern to the decoration of the made object, is

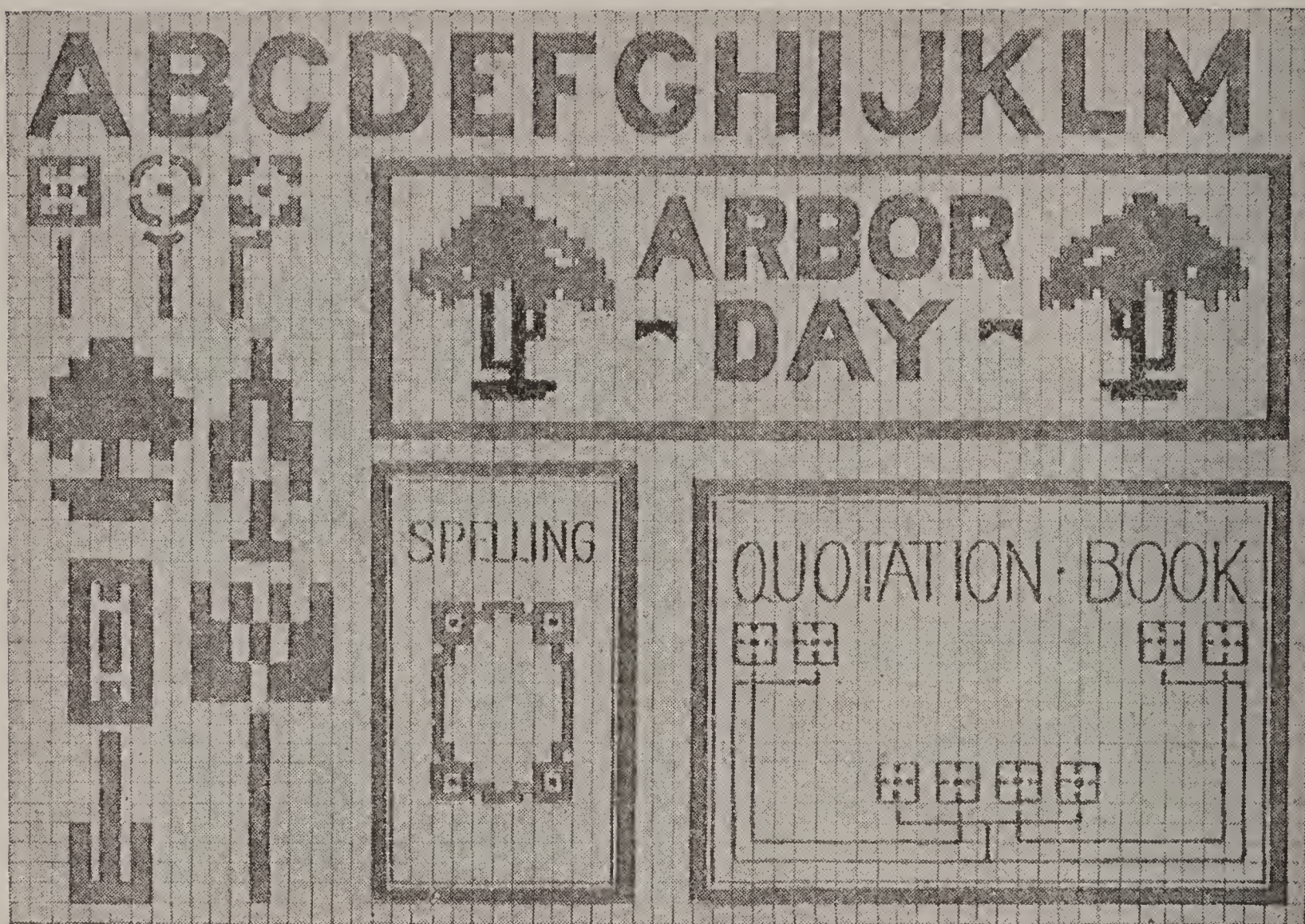


FIG 1

PATTERN FOR CANDY HOLDER

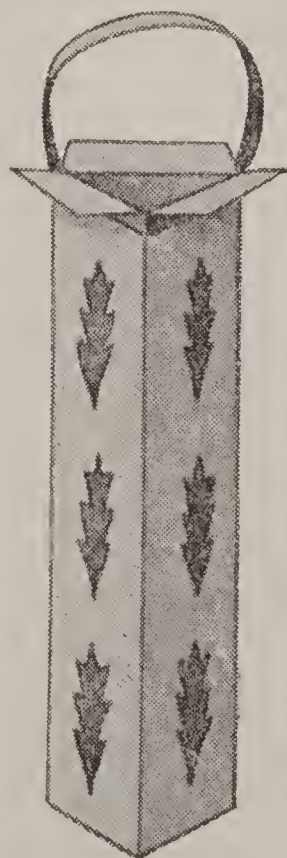


FIG 2

CANDY HOLDER

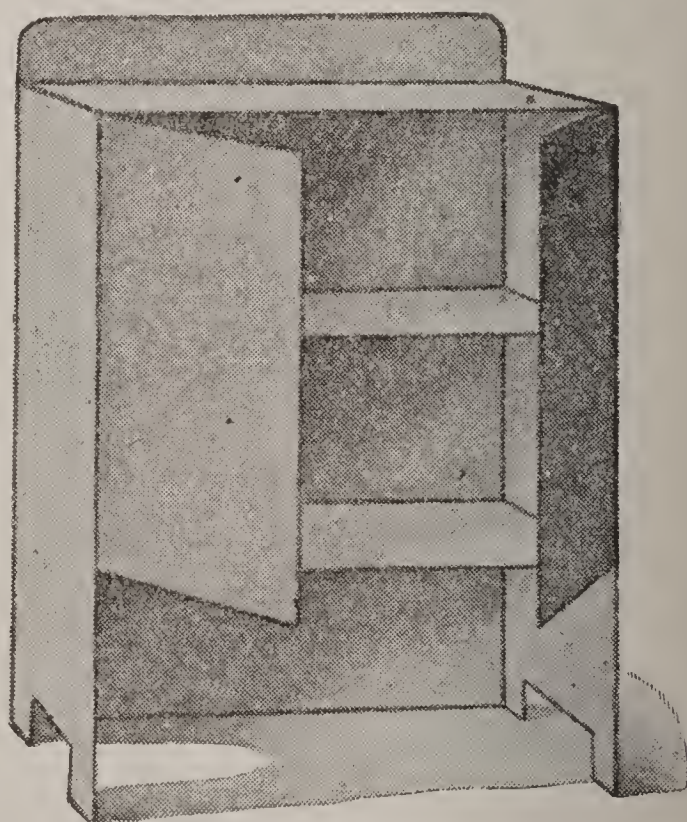


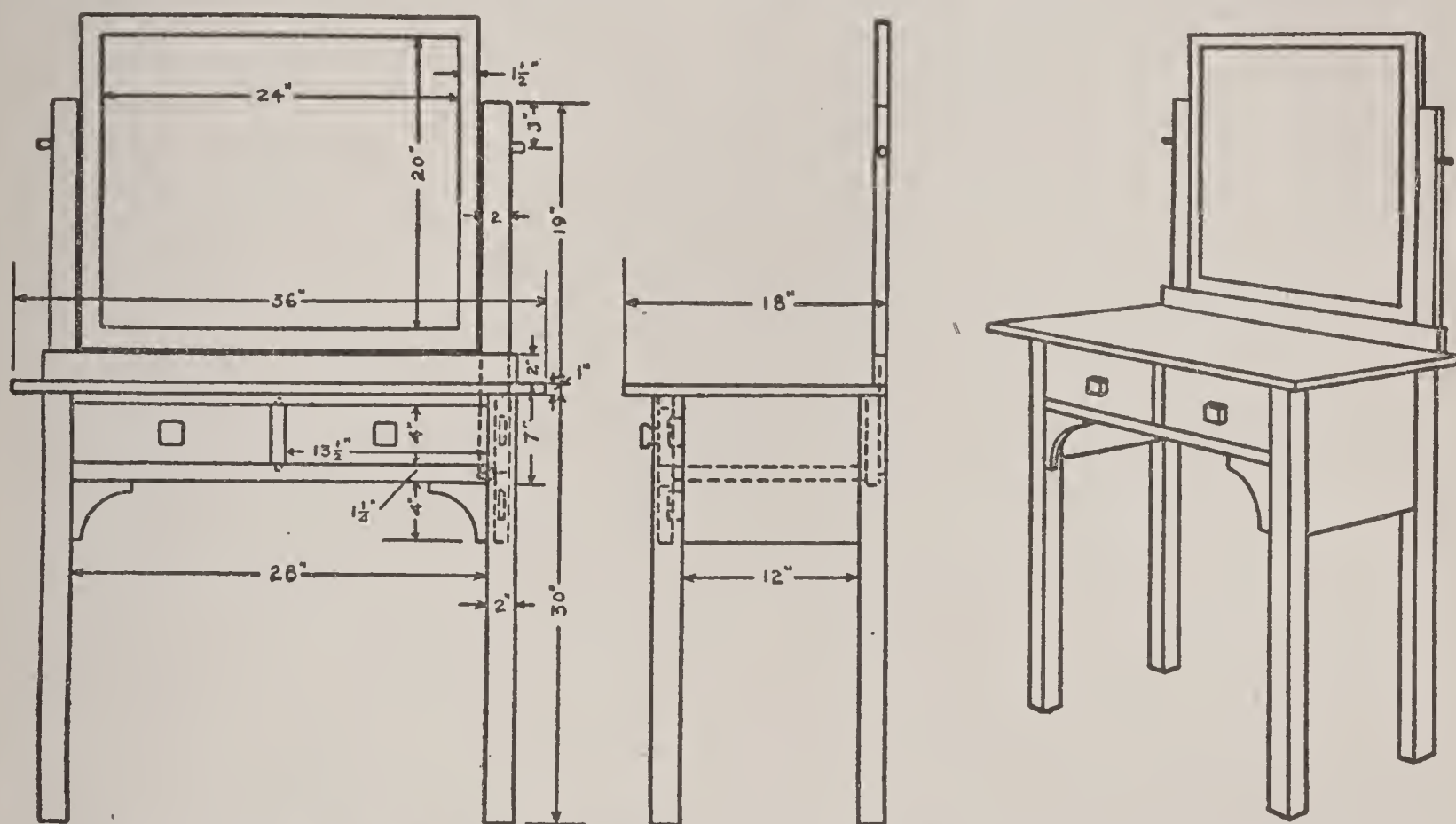
FIG. 3

DOLL'S KITCHEN CUPBOARD

entirely within the ability of a first grade child, and serves as an example of the kind of construction and decoration that should be offered him as a problem. Such a piece of work is entirely his, is simple, sincere, and worthy, and is therefore beautiful. False ideas of what is genuine and honest should not be established by permitting him to fill in with colored washes some outlined shape entirely beyond his power to produce.

There are many simple problems which will satisfy his ambitions at this stage, and will give him the best possible basis for self-criticism:—"Is this work mine, from beginning to end, and have I done it as well as I can?" Fig. 3 illustrates an exercise which will engage the attention of a second or third grade child, particularly if the doll's house makes its obvious demand for appropriate furnishings. In the grammar grades such work as this gives way to problems in construction in keeping with the development of the child's interests and powers.

The materials he uses for such work are necessarily limited by conditions prevailing in the present day schoolroom ; but from the various cardboards, tinted papers, and textiles now available, an interesting variety of useful and beautiful articles may be constructed. Book-binding is one of the crafts that can be carried on with great success, both from educational and from purely practical standpoints. It interests boys and girls alike, it is universal in its application, it calls for no expensive equip-



LADIES' DRESSING TABLE · WHITE OAK · WAX FINISH

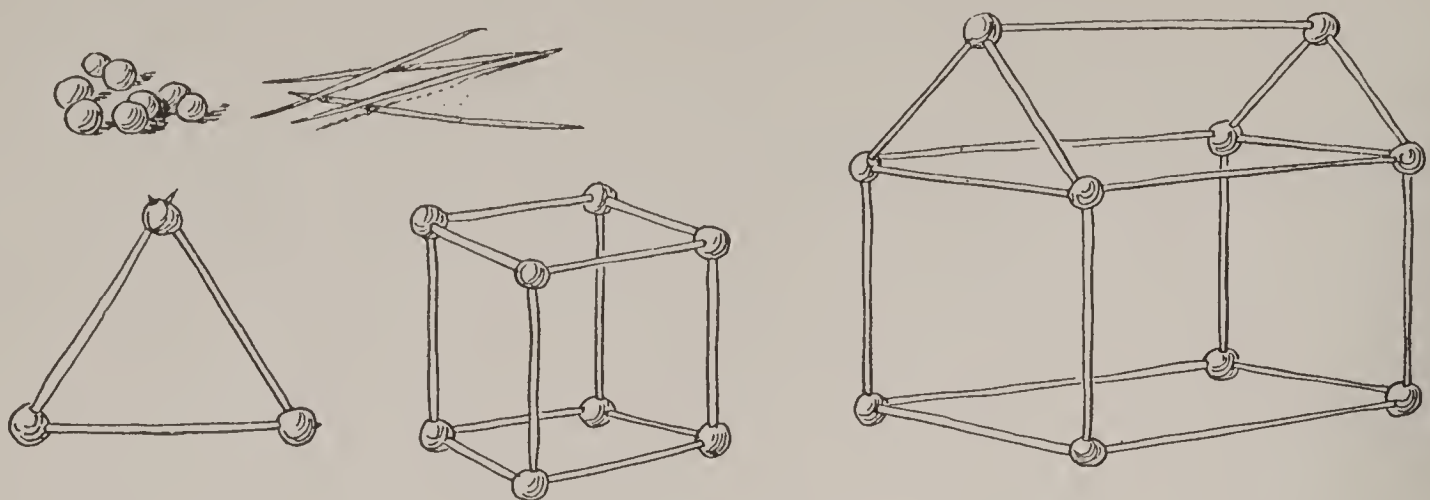
ment of shop or manual training room, and its results give the worker all the "joy of the working" that is felt with exercises demanding more expensive materials and equipment. The pride an eighth grade student takes in the worthy binding of a favorite book is delightful to see.

In the high school, work of as dignified and substantial a character as that represented by the Ladies' Dressing Table may be given, in the course in constructive drawing. Here the student works from a mechanically executed working-drawing, in itself another language, and one which all graduates of the public schools should understand. The ability to make and read a working drawing, to render a perspective sketch of the object to be constructed, and the added power to make from suitable material the object itself, cannot fail to give the fortunate recipient of such training a right idea of the dignity of labor and make him fit to judge of all matters pertaining to the relationships between labor and life. Such training as this will help the public schools to respond adequately to the demands of our times.

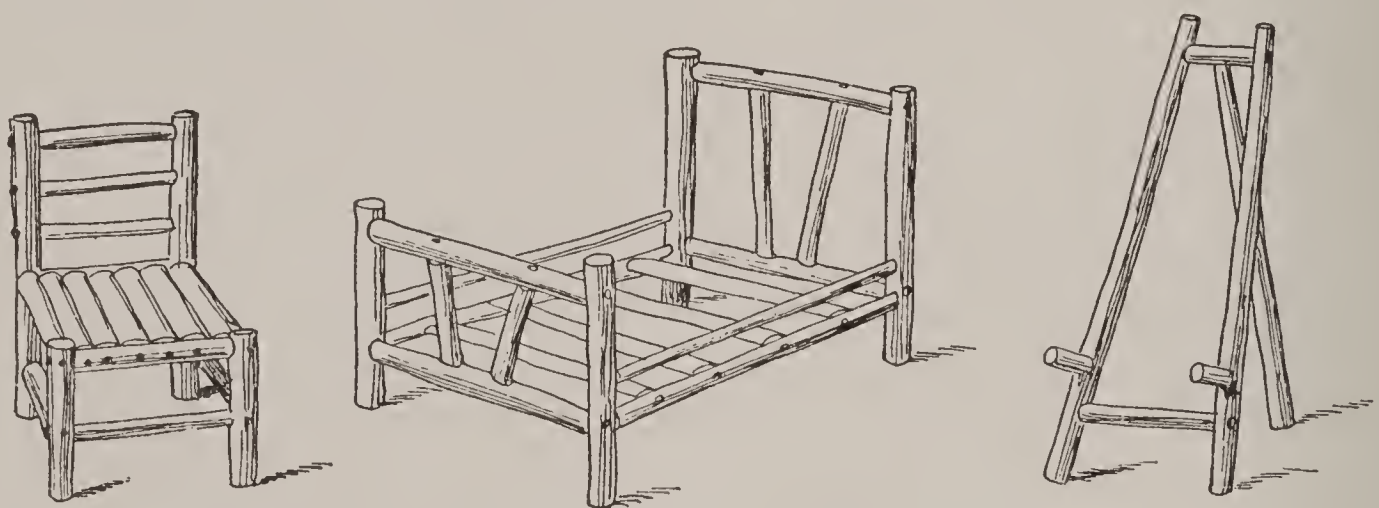
BONNIE E. SNOW and
HUGO B. FROELICH,

From the Editorial Department of the Prang Company.

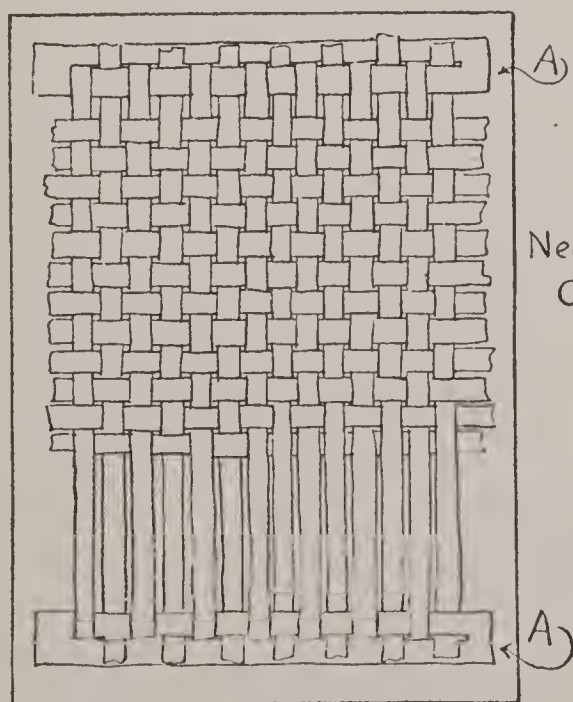
STICK AND PEA WORK



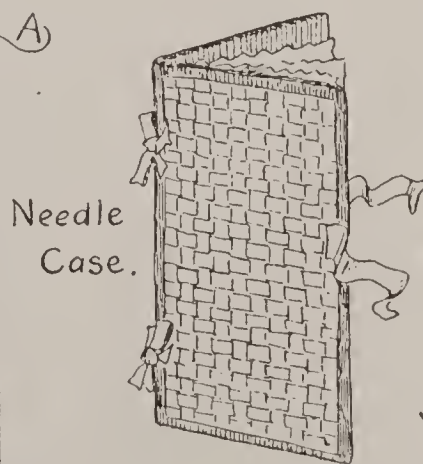
CORN-STALK FURNITURE



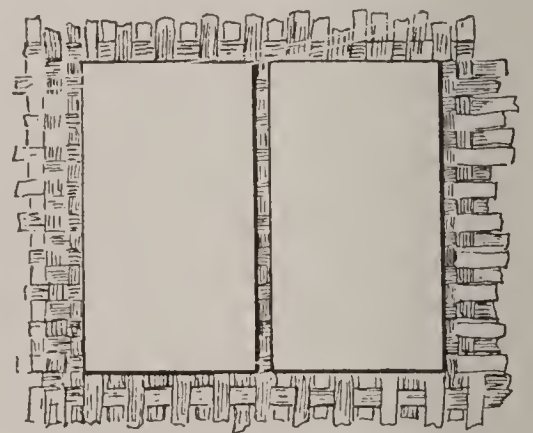
STRAW WEAVING



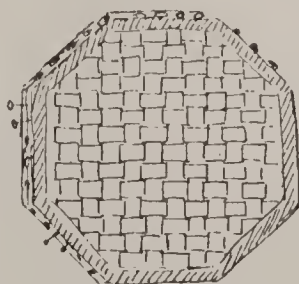
Step 1. Cardboard loom showing straw held in place by paper strips A, A.



Needle Case.

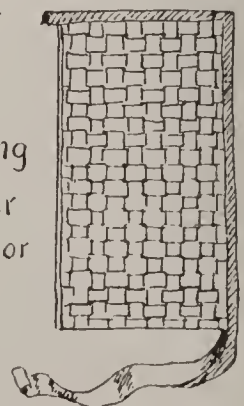


Step 2 Mounting straw mat on cardboard covers for needle case



Pin Cushion.

Step 3. Binding edges of cover with ribbon or tape.



MANUAL TRAINING

Manual Training is that branch of education which deals with the development of the motor and sensory faculties of the child, through the use of tools and materials suitable for self-expression in concrete form.

As nine-tenths of the population obtain their living through some form of manual work, any training of the hand and eye which adds to the technical skill and efficiency of the future citizen is of the greatest importance. Moreover, the study of industrial processes through actual contact greatly enriches the knowledge gained from books. The child, then, with this added equipment, becomes a more useful and intelligent member of society and is more likely to discover that occupation for which he is best fitted.

THE COURSE AND THE EQUIPMENT

Inasmuch as handwork of some sort logically belongs in every grade, from the kindergarten to the college, the problem of planning a complete course in Manual Training is a large one. To lay out such a course one must consider first the age and ability of the pupils in hand. Secondly, the social environment and the local industries which control the interest and largely determine the future occupation of the students must be taken into account. For example, a set of problems which are adapted to a country boy would have little interest for one living in a city or in a mining town. Third, the cost of equipment and maintenance must be such that it may come within the reach of the school system under consideration. Many wealthy communities have spent large sums of money in industrial education, but this need not discourage the small town or village from making a beginning, as the acquisition of over-equipped shops and high-priced materials tends to make the student helpless and confused as to the true value of manual work.

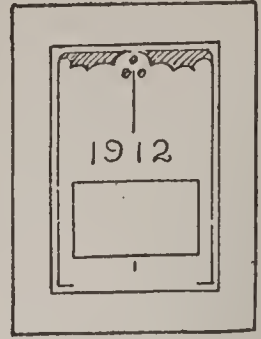
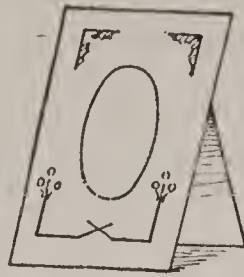
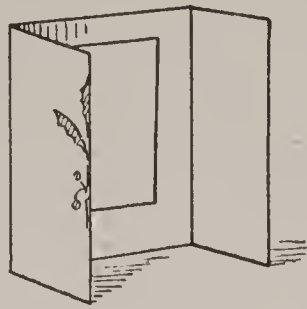
As a rule the construction work of the first five grades may be taught by the regular teacher in her class-room; while the work of the upper grades necessitates a teacher with special training and a work-room or shop of some sort. A minimum equipment for a class of eighteen in paper, clay, textiles, cardboard, metal, or leather work can be purchased for about \$10.00. In many cases, when the outfit consists of needles, scissors, rule, pencil, and compass, it can be furnished by the pupils themselves.

When a special room is not provided for work in thin wood or metal, long boards or planks may be laid along the tops of the desks to work on, and at the end of the lesson they may be hung underneath the blackboard at the side of the room. The tools are best kept in trays stored in a cabinet.

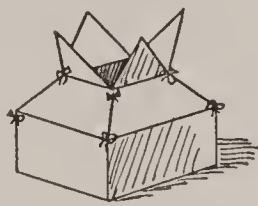
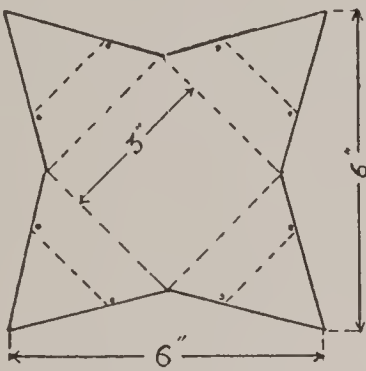
LOWER GRADE AND HOME WORK

It is usual for a teacher of advanced manual training to take a course in some university or technical school, where he will acquire that skill and knowledge in materials and methods which an article of this scope would be unable to cover. For the benefit of grade and rural school teachers without such training, as well as for mothers in the homes, who desire to direct children along the line of handwork, the

PAPER AND CARD-BOARD WORK



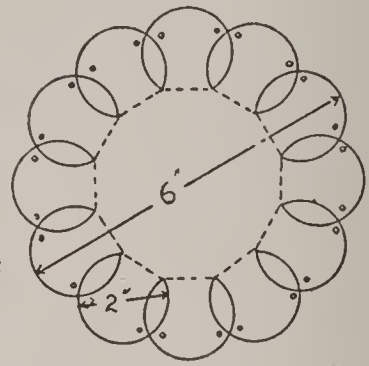
HOLIDAY SEASON



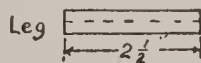
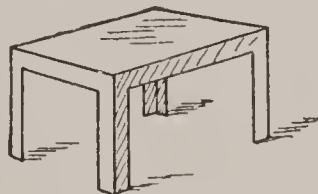
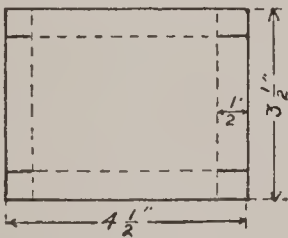
Candy Box



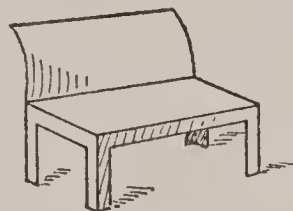
May Basket



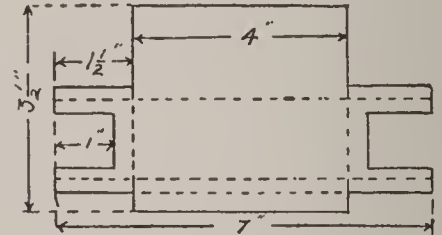
Pattern for Table



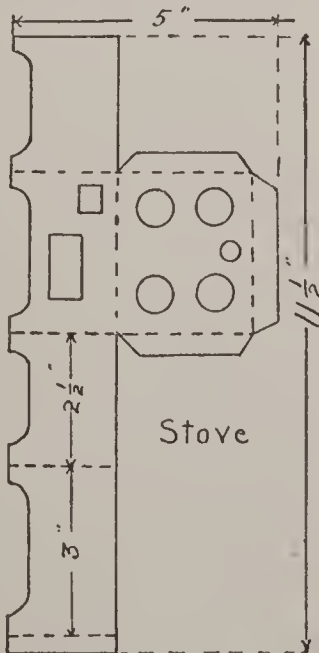
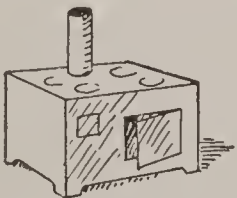
Leg



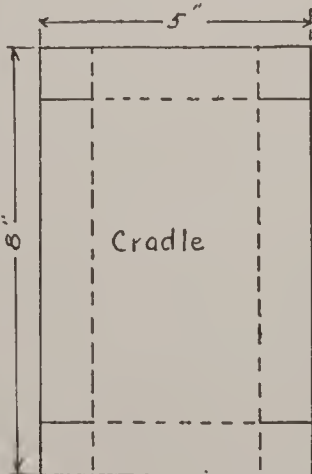
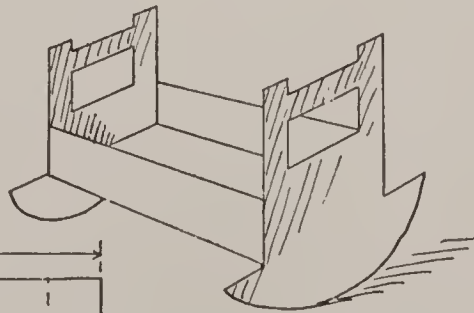
Pattern for Sofa



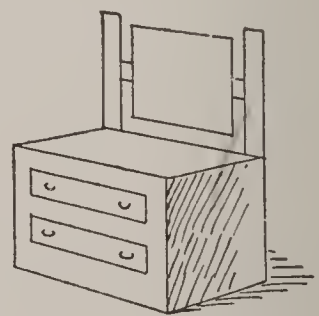
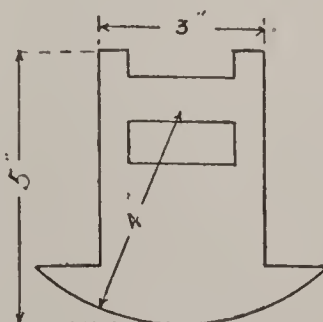
HOME INTERESTS



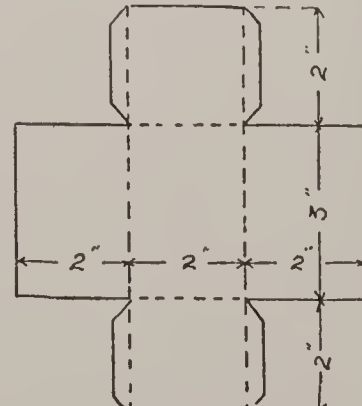
Stove



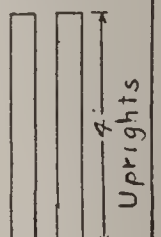
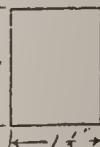
Cradle



Bureau

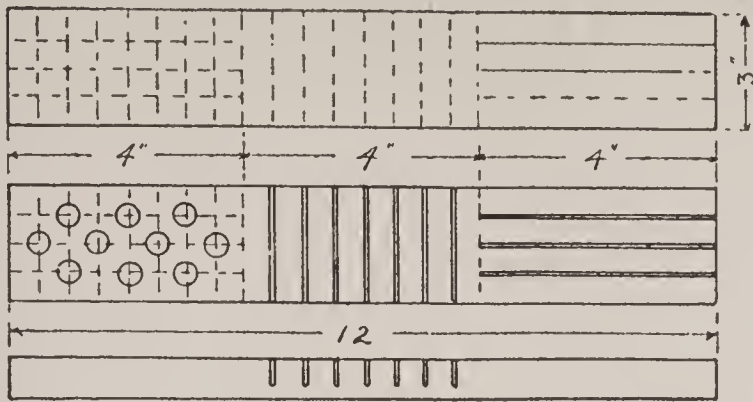


Mirror

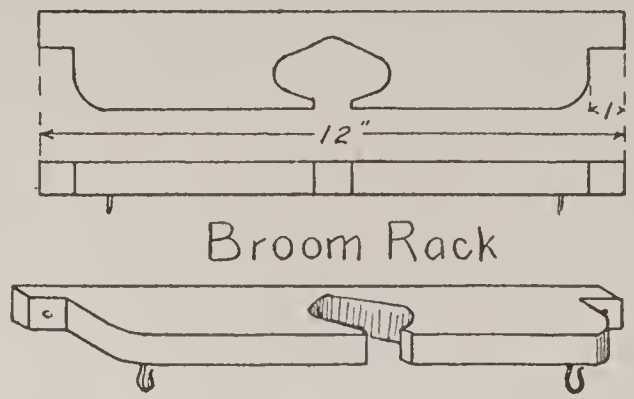


Uprights

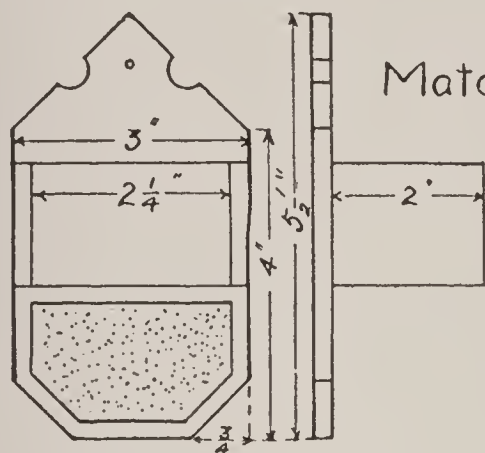
ELEMENTARY WOOD WORK



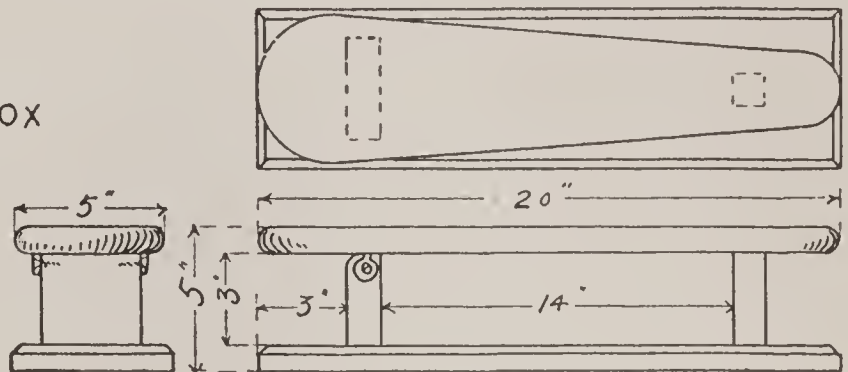
Practice Exercise



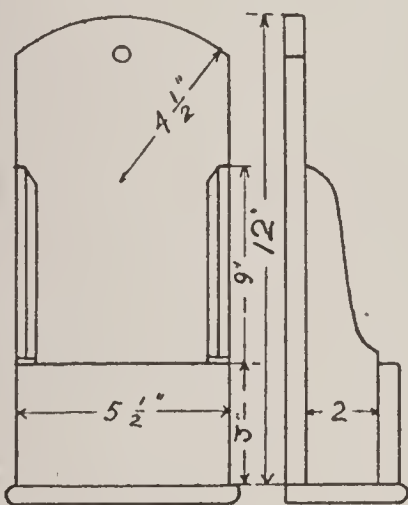
Broom Rack



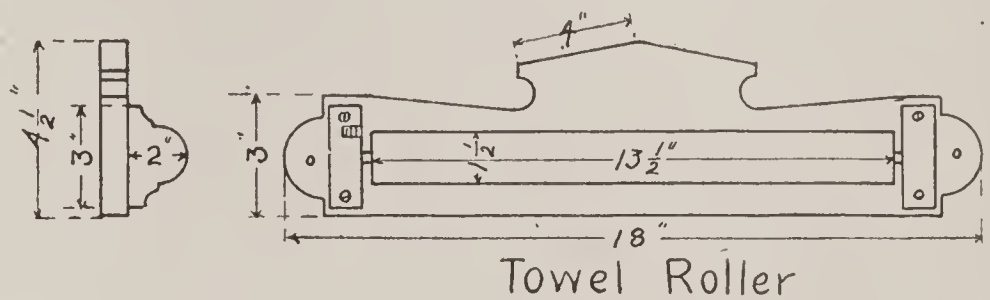
Match Box



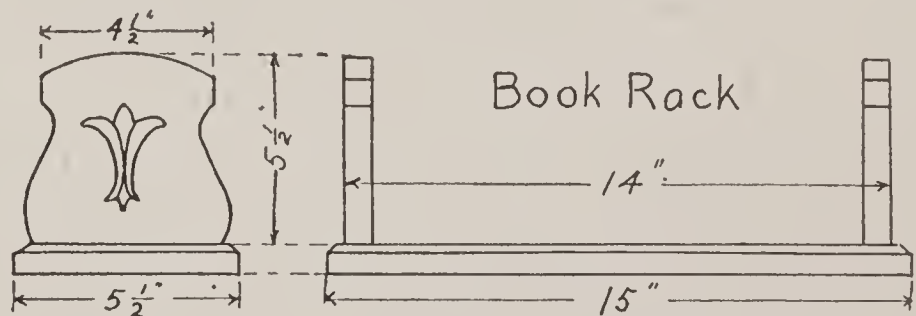
Sleeve Board



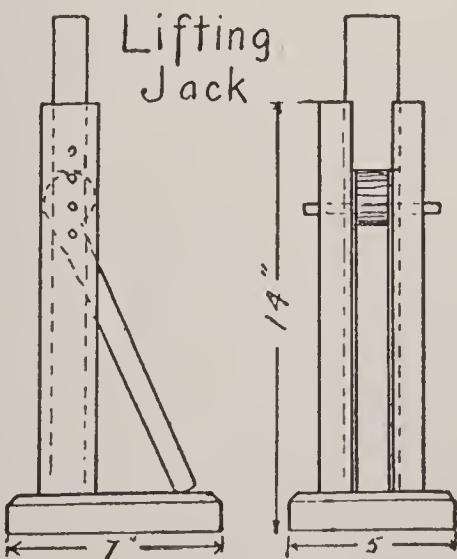
Knife Polishing Box



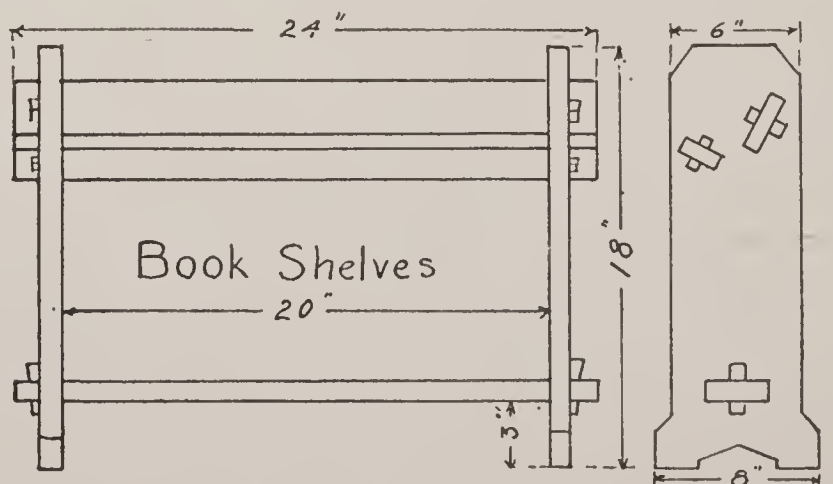
Towel Roller



Book Rack



Lifting Jack



Book Shelves

following description of some of the simplest materials and their manipulation may be of value.

Building toys and model furniture out of small sticks, such as tooth-picks, which are fastened together with peas softened in water, or with small cubes of potato, is interesting work. Cornstalks are also very useful for making doll furniture, as they can be easily cut with a knife or shears, using common pins for fasteners. Only the upper part of the stalk is used.

Children seven to ten years old can make many beautiful and useful articles out of straw. Any clean, straight straw will do, the process being as follows: First, two pieces of heavy paper, about 1 x 5 inches, with a slot cut lengthwise in each, are pasted on a piece of cardboard about 5 x 8 inches, as shown. This device makes a sort of loom in which the straws, split open, are laid smooth side up. When the loom is filled, other straws are woven in crosswise till a mat is made large enough to cover a picture frame, card-case, or pincushion. After the straw is woven together, it must always be mounted on cardboard, and the edges bound with ribbon or braid to keep them from working loose. Another form of weaving which affords great pleasure to girls is the making of a doll's hammock. The loom in this case is made of cardboard, as illustrated, and the twine or cord for the warp is passed back and forth, between the rings, while the woof consists of narrow strips of cloth or colored yarn, which is left about one inch long on each edge to form a fringe.

WOODWORK

This important branch of Manual Training, which may be commenced in the fifth and sixth grades, consists mainly of whittling in thin wood. The equipment required consists of a knife, rule, compass, awl, hammer, and coping saw. The best material is thin white pine or basswood, but crates and cigar boxes can be well utilized.

With a little help, models of almost any familiar object can be made, such as doll furniture, wheelbarrows, sleds, windmills, and small boxes. *Elementary Sloyd and Whittling*, by Larsson, contains working drawings and outlines for forty models, with directions how to make them.

When a child reaches the seventh or eighth grade he should be given regular carpenter's tools and a bench. If funds are not available, a start can be made with a few tools, which, with enthusiastic use, will produce surprising results. When once it is proved to the hard-working taxpayer that in the school workshop his children are putting to a practical test the knowledge gained in the schoolroom, and are laying the foundation for future bread-winning, the matter of cost will be settled with a pleasant face and a generous hand. As is well known, adolescence is a most critical stage in the child's development; and wise teachers should be alert to guard against careless and inaccurate habits. Good results can be obtained only when tools are kept sharp and clean, and used only for the purpose for which they are intended; above all convince the pupil that no construction should be executed by accident, from a vague and indefinite conception, but from a carefully prepared plan. For this reason it is always a good idea to have the young workman first make a working drawing of his project so that he may thus become familiar with its proportions. It is usual to start the beginner on a plain exercise such as No. 1, which will give him practice in gauging, squaring, sawing, and boring. He might start at once on a match box or broom rack, and with the constant help of the teacher produce a fair article. It would be at the expense, however, of a great many questions, and several pieces of wood, so that in the end nothing is gained by omitting that preparatory work that must come in every well-organized enterprise. As soon as he has obtained, through practice, a reasonable amount of skill, opportunity should be given for self-expression within limits determined by the teacher. Finally, the purpose of manual training has not been fulfilled until the pupil becomes independent of teacher or model,—until he becomes able to create that design or article which embodies all the skill and forethought of which he is capable.

ARITHMETIC

A knowledge of the basic principles of arithmetic, with habits of absolute accuracy and reasonable skill in the performance of the fundamental processes, is today essential to permanent success in any occupation. But that statement should not discourage anyone, for every normal boy or girl *can master* the important principles of arithmetic, can become accurate in the use of numbers, and can gain reasonable skill in using them to solve all ordinary problems.

PRIMARY ARITHMETIC

Before any headway can be made in the study of the relations of numbers one must know the number-groups, be able to tell at a glance whether there are four or six in a group, and to recognize those groups no matter what the arrangement. To learn that, no single kind or set of objects should be used, for we must begin to get the idea of number as an abstract thing. So long as a limited number of objects is used, attention will always be called to the things instead of to the relations. So no opportunity should be lost to use the number-terms incidental to all other study. Recognizing number only in the number class causes it to lose its relation to things of everyday importance. Cards 1 x 2 inches, marked with dots to correspond with dominoes, form a splendid means of becoming acquainted with number-groups. At first give out cards showing only combinations up to 4-blank.

A spool box should be provided with each set. Other cards should be added as they are needed, the earlier combinations given being ready for use from practice. Later the children can be taught to make their own combinations by supplying dots to cards already having the dividing line according to a diagram which the teacher has drawn on the board. Later still when some skill has been acquired, they may be allowed to draw the line and supply dots independently.

Beginning with those already indicated, proceed as follows:

1. Hold up a two-dot and blank card. Say, "Find a card that has *two* dots." Help the slow ones, and if Mary holds up double-one, say "Yes, that one has two dots. Find one like Mary's." Do not stop here to teach $1+1=2$. Remember that you are only trying to fix number-groups, not relations.
2. In the same manner teach the two different cards giving a total of three, 3-blank and 1-2.
3. Next take up the fours: double 2; 3-1; 4-blank. That may be enough for one lesson unless you find that they already know that much; if so, more cards can be used. For busy work let them draw around the cards and place the lines and dots where they belong, using generally not more than two cards for each pupil.

As additions are made to the supply of cards, keep up a daily review of all the work done before. When the combinations of numbers up to ten have been learned in that way, the same cards can be used to establish addition, subtraction, multiplication, measurement, and partition facts.

Addition. Perhaps the knowledge we most frequently make use of comes incidentally, and so in learning the card which totals 5 (2-3), the pupil learns incidentally that $2+3=5$, although no formal statement is made of it at the time. That can be

developed by drawing attention to the card and telling the story which the dots say—"Two and three make five."

Show 4-1. What does it say? Four and one make five.
What does the 1-2 say?

For most classes it is perhaps best at this juncture not to attempt teaching the written form until the oral forms are fully understood.

Subtraction. The child has learned incidentally that when one card has 2, 3 more are needed to make 5. So it is easy to develop subtraction by holding up the 2-3, covering the 3, and asking how many are left when 3 are taken away. Now the dots say: "Five less three are two." What does 3-1 say when 1 is covered up? What does the double 2 say when 2 is covered? In that way work out all possible combinations with the numbers studied.

Multiplication. By this time they are familiar with the cards and can do some thinking without the dots before them. At this point, except when one wishes to teach some new principle, questions should be asked without a card being held up. Some of the class will be able to answer or find the card without assistance, and such should not be crippled by having the teacher do it first. Then, after letting the slow ones see what is required, have them do the same.

Select cards having 2 ones, 2 twos, 2 threes, 2 fours, and 2 fives. Lay them upon the desk and put all others out of sight. In that way develop this table:

2 ones = 2	$2 \times 1 = 2$
2 twos = 4	$2 \times 2 = 4$
2 threes = 6	$2 \times 3 = 6$
2 fours = 8	$2 \times 4 = 8$
2 fives = 10	$2 \times 5 = 10$

Measurement.	ANS.
Two are how many ones?	2 are 2 ones.
Four are how many twos?	4 are 2 twos.
Six are how many threes?	6 are 2 threes.
Eight are how many fours?	8 are 2 fours.

Partition. Six dots divided into two groups put how many in each group? Work up partition table.

$2 \div 2 = 1$
$4 \div 2 = 2$
$6 \div 2 = 3$
$8 \div 2 = 4$

While the cards can be used very nicely to work different tables of twos, the result will not be good if you attempt the 3's and 4's, except in addition and subtraction. The cards are not to be used exclusively, but many other objects should be used. Work out same additions and subtractions with pegs, splints, beads, etc., and then multiplication, partition, and division can be gradually transferred to other things besides dominoes without seeming strange.

In that connection the inch squares may be used for building rectangles to express what 3×5 and 2×4 mean. Along with the development of multiplication, work out corresponding measurement and partition. Each child's equipment should consist of a sufficient number of rectangles, 2, 3, 4, 5, and 6 inches long and 1 inch wide, with inch marks drawn across the slip.

- When you wish to use measurement tables, use these:
- Make rectangle showing 4×3 , using 3-inch slips.
 - Divide into two parts. $12 \div 2 = ?$
 - Divide into three parts. $12 \div 3 = ?$

The inch squares can be used for that exercise, but the greater ease of moving the rectangles without disarrangement makes them preferable. The same thing must

be worked out with many other objects in order to keep those relations abstract. An admirable device to use for many of the exercises is a paper four or six inches square. Indicate "upper edge," "low left-hand corner," etc., at first by appropriate motions, until the children are familiar with them. Do not try to get them to memorize the various terms. Just use them freely and they will be learned all right.

I. RECTANGLES AND SQUARES.

1. Fold the right edge to the left edge. Crease and open. How many rectangles?
2. Fold the lower edge to the upper edge, same sheet. Crease and open. How many quarters?
3. Fold lower edge to the middle, same sheet. Crease. Fold upper edge to middle. Crease and open.
How many rectangles? How many in each half? How many in each quarter? How many in three-quarters?
Show four rectangles. What part is that of all?
Show two rectangles. What part of all?
Six rectangles. What part of all?
4. Fold right edge to middle, same sheet. Crease. Fold left edge to middle. Crease and open.
How many squares? How many squares in each row? How many in two rows? Three rows?
Fold to show one-half. How many squares?
Fold to show one-quarter. How many squares in each quarter? In three-quarters?

II. TRIANGLES.

1. Fold the upper right-hand corner to the lower left-hand corner. Crease and open.
How many triangles?
2. Fold the upper left-hand corner to the lower right-hand corner, same sheet. Crease and open.
How many triangles? Each triangle is what part of the square? Show half the square. How many triangles.
3. Fold lower edge to upper edge, same sheet. Crease and open.
Fold right edge to left edge, same sheet. Crease and open.
How many triangles? Each is what part of the square?
How many eighths in each half? In each quarter?
4. Fold lower left-hand corner to center, same sheet. Crease.
Fold lower right-hand corner to center. Crease.
Fold upper right-hand corner to center. Crease.
Fold upper left-hand corner to center. Crease.
Open. How many triangles?
Repeat questions as above for sixteenths. Those two exercises will suggest many more and should be repeated with circles and other forms.

III. AN EQUILATERAL TRIANGLE will give variety and serve to work up halves and fourths. Obtain it by measuring, say three inches as a base, and drawing a half circle from each point with a compass. Where the lines cross will be the apex. Cut out.

1. Hold the triangle with base horizontal.
Fold lower left corner to the lower right corner, dividing apex evenly. Crease and open.
How many triangles? What part is each of the whole?
2. Fold the lower left corner of different sheet to the apex. Crease and open.
Fold the lower right corner to the apex. Crease and open.
How many triangles on each sheet? Each is what part of all?

Fold apex to center of base and fold the sides over. How many triangles are produced? Each is what part?

Cut from middle of base to center of the sides of the triangle. Show $\frac{2}{3}$.

Exercises with the equilateral triangle are a little difficult and progress should be made slowly, being sure that every step is understood.

Children naturally like to make things, so, when the number lesson is over, allow them to make boxes, baskets, etc. Charm is added if colored paper is sometimes used. White paper loses its commonness if they are allowed to draw or paint borders or paste on tiny pictures. That will not detract from the number value of the work and will provide pleasant and profitable employment.

SHORT METHODS

ADDITION

(a)	(b)	(c)
5	42	72
4	41	32
1	67	92
4	60	76
2	49	24
3	—	68
1	259	—
7		364
—		
27		

Explanation

Train the eye so it will quickly see groups totaling 10, taking the numbers consecutively, as in (a) and (b). After that habit is developed, select numbers not consecutive, as 3 and 7 in (c). Care must be exercised in going back and picking up numbers not included by such choice. As one grows more skillful in selective counting, other combinations will present themselves and will add much to the rapidity of the work.

EXAMPLES FOR PRACTICE

39	59	539	32646	41508	74663
63	40	401	48734	84002	86545
19	19	175	12348	93425	27603
78	32	326	32457	63245	24592
32	78	684	34523	95067	54398
43	36	572	74660	24568	40024
56	74	348	34872	37466	15084
13	96	792	46345	27483	73425
74	—	—	21376	—	84671
—			—		—

MULTIPLICATION

When the multiplier is near 100.	536	53600
	98	1072
	—	—
		52528

Explanation

- 1. Multiply by 100.
- Subtract twice the multiplicand.

2. When the multiplier is an aliquot part of 100.
 $16\frac{2}{3}$ take $\frac{1}{6}$ of 100 times the multiplicand.
25 " $\frac{1}{4}$ " " " " "
 $66\frac{2}{3}$ " $\frac{2}{3}$ " " " " "

EXAMPLES

- | | | | |
|---------|---------|----------|---------|
| 1. 342 | 6. 534 | 11. 888 | 16. 573 |
| 2. 609 | 7. 796 | 12. 429 | 17. 348 |
| 3. 1509 | 8. 432 | 13. 3918 | 18. 495 |
| 4. 7354 | 9. 637 | 14. 819 | 19. 537 |
| 5. 7963 | 10. 496 | 15. 756 | 20. 897 |

Multiply by 99, 98, 97, 96, 95, 94, 93.
Multiply by $12\frac{1}{2}$, $16\frac{2}{3}$, $33\frac{1}{3}$, $66\frac{2}{3}$, 75.

DIVISION

When the divisor is an aliquot part of 100.
 $16\frac{2}{3}) 537$

Process: 5.37
6

32.22

Explanation

1. Divide by 100 ; multiply by the aliquot part inverted.
2. To divide by $12\frac{1}{2}$ use 8 ; by $33\frac{1}{3}$ use 3 ; by 25 use 4 ; by $14\frac{2}{7}$ use 7.

EXAMPLES FOR PRACTICE

- | | | |
|------------|-----------|-------------|
| 1. 6564 | 6. 43.74 | 11. \$4.25 |
| 2. 9856 | 7. \$75 | 12. 687 |
| 3. 3500 | 8. \$150 | 13. \$93 |
| 4. \$37.57 | 9. \$560 | 14. \$75.50 |
| 5. \$685 | 10. \$175 | 15. \$200 |

Divide each by $12\frac{1}{2}$, $33\frac{1}{3}$, 25, $14\frac{2}{7}$.
Work out other aliquot parts and use in the same way.

EXERCISE IN ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION

63	91	84	93	67	98	87	97	105
—	—	—	—	—	—	—	—	—
2	9	2	4	9	6	2	7	3
9	2	4	8	1	5	3	1	7
4	7	9	1	9	6	9	8	6
9	4	1	6	2	4	2	7	9
7	5	7	3	8	9	8	2	8
6	6	5	4	3	6	5	5	1
5	3	3	5	7	7	7	3	3
8	1	8	2	4	8	4	4	2
3	8	2	7	6	3	6	6	5
1	2	6	9	5	1	1	9	4

1. In addition.
a. First line will read 11, 11, 6, 13, 15, 8, 9, 10, adding first and second numbers, second and third, etc.
b. Add each column, beginning at the bottom.
c. Do the same, beginning at the top.
d. Add from right to left.

2. In subtraction.
 - a. From the large number at the top of the column, subtract succeeding numbers given, naming remainder only each time.
 - b. Take each line from left to right; give difference between each two consecutive numbers. First line will read 7, 7, 2, 5, 3, 4, 5, 4.
3. In multiplication.
 - a. Give the product of each two consecutive numbers from left to right.
 - b. Same down the column. Same up the column.
4. In division.
 - a. Divide the large number at the top by each number in succession, giving only quotient and remainder (if any). Vary this by giving the remainder (if any) as a fractional part of the divisor.
 - b. Vary the exercise by changing the numbers at the top.

FRACTIONS

I. RELATION OF FRACTIONAL PARTS TO EACH OTHER.

1. Make a 4-inch square of paper; then a 6-inch square. Let the pupil see that the relation of parts to whole does not depend on size.
 - a. Fold upper and lower edges together. Crease and open.
 - b. Fold right and left edges of the same square together, crease and open.
 - c. Fold lower edge of the same square to middle, crease and open.
Fold upper edge to middle, crease and open.
 - d. Fold right edge of the same square to middle, crease and open.
Fold left edge to middle, crease and open.

EXERCISES

1. How many quarters in each half?
2. How many eighths in each half?
3. How many eighths in each quarter? In three-quarters?
4. How many sixteenths in each quarter? In three-quarters? In one-half?
5. How many sixteenths in each one-eighth? Three-eighths? Five-eighths? Six-eighths? One-half?

Carry out that same plan with 3rds, 4ths, 6ths, 9ths. Vary by the use of circles, triangles, anything which can be easily divided, until the pupil can think beyond the object and see the relation of the part to the whole. Be careful not to allow the fractional part to be associated with any definite size or shape. Therein lies the danger of using objects to illustrate relations, a thing which often handicaps seriously the understanding of the really simple subject of fractions. Whether the teacher only should do the concrete work, and have the pupils do all their reckoning abstractly, is a matter of conditions.

By carrying out that idea with slight alterations, one can readily review the work done in the second and third years of school and open the way to sensible addition, subtraction, multiplication, division, and reduction, ascending and descending, of both common and decimal fractions. Some special suggestions are given below.

II. SUGGESTIONS FOR TEACHING ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION OF FRACTIONS.

1. Addition and Subtraction. Begin with simple exercises to which the pupils can readily see answers. How much are one-fourth and one-half? One-third and one-fifth? etc. Lead the pupil to see that fractions must have the same denominator or name before they can be added, and the whole problem of adding fractions is solved. The same is true of subtraction, the only new element being "borrowing" in the case of subtracting one mixed number from another. But that will present no real difficulty.

2. Multiplication.

- a. To multiply a fraction by a whole number.

How much is three times two-sixths? Give several such simple exercises, and develop the principle that, for the new numerator, we take the product of the whole number and the numerator of the given fraction, the denominator remaining unchanged.

- b. To multiply a fraction by a fraction.

This process grows naturally out of the foregoing. One-third of one-half of a pie, for instance, is one-sixth of a pie. Notice that the numerators have been multiplied together for a new numerator, and denominators together for a new denominator.

3. Division.

Divide four feet by two. Divide four-thirds by two. This last is the same as one-half of four-thirds or two-thirds. Give several such exercises. For instance, how many times does a circle contain one-half of itself? One-third of itself? Five-sixths of itself? Can you tell by inverting one-half, one-third? etc. That leads to the principle that we divide a fraction by a fraction by multiplying the inverted divisor by the dividend.

III. DECIMAL FRACTIONS.

The earliest actual use of decimals comes in writing money. The child recognizes readily that the figures at the left of the decimal represent the number of dollars, while those at the right represent the number of cents. When studying money, remind children often that the cents are written in that way because they are fractional parts of a dollar. Each cent is $1/100$ or, as we write it, \$.01; 25c is written 25/100 or \$.25; 2 dimes \$.2 or \$.20. In their study of money they have learned that a mill is the one-thousandth part of a dollar, and that it is written at the right of cents. Go into this further; write the ten-thousandth part, hundred-thousandth part, and in that way introduce the technical study of the decimal system.

The very young child always wants to know the reason for everything, but there is generally a period between the fourth and seventh grades where that trait is not so prominent. Nature knows what she is about. At that time memory is strong but reason is only dawning, and reason must have great masses of facts to struggle with. It is enough to know that, in adding or subtracting decimals, the numbers must be written so that the decimal points are in a column; that, in dividing, the decimal places in the dividend must at least be as many as those of the divisor, and the excess of those in the dividend over those in the divisor determines the number of places in the quotient. It is time to explain "why" when someone wishes to know. Then the explanation should be given clearly. See to it that those interested get it, but do not require it of the others. They are not mentally ready for it, and it is absolutely wrong to try to force it now. Memory will take care of the *fact* now, and reason will attend to the *why* later, when it is sufficiently developed.

Such fundamental operations are learned largely in the same way we learn to cook; mix ingredients according to recipe and learn why by watching results, not by learning first the chemical actions of the various elements. Whenever a pupil asks why, he should have an explanation because he is ready for it and would be crippled by being refused. Let him learn the operation first by doing it according to spoken direction, and give him enough practice to fix the fact; then let him consult the written direction or rule found in the text-book, comparing it with the method he has used. Let him determine which is better and allow him to use his choice, for the way he likes is better for him whether it is ideally best or not. Allow considerable latitude to individual thought and expression here, and you will be rewarded by having pupils with ability to do individual thinking later.

SHORT METHODS OF FINDING INTEREST

I. SIX PER CENT METHOD.

To find the interest on any sum at 6% for 20 months or 600 days, move the decimal point one place to the left. For sixty days or two months, move it two places. For six days move it three places.

The interest, then, on \$192.14 for twenty months is \$19.214; for sixty days it is \$1.9214; and for six days, \$.19214. Having found the interest for six or sixty days, it is easy to find the interest for any number of days. Thus the interest for one month, nine days, would be one-fourth the interest for 160 days, plus one and one-half times the interest for six days. The interest at any other rate than 6% may easily be found by using the 6% method. For instance, the interest at 4% will be two-thirds of the interest at 6%. The interest at 7% will be seven-sixths of the amount at 6%.

II. BANKER'S METHOD.

$$\frac{\text{Principal} \times \text{days} \times \text{rate}}{360} = \text{Int.}$$

$$\frac{\text{Principal} \times \text{months} \times \text{rate}}{12} = \text{Int.}$$

MODIFICATION OF BANKER'S METHOD

Multiply the principal by the number of days.

At 3%	divide by	120	
4%	"	"	90
5%	"	"	72
6%	"	"	60
7%	"	"	52 (approximate)
8%	"	"	45
10%	"	"	36

LONGITUDE AND TIME

1. The purpose of these calculations is to enable one to ascertain the location of any place on the globe, or to enable vessels on the water to determine their location and course.
2. Latitude is distance north or south of the equator. Longitude is distance east or west of a given meridian. Both are usually measured in degrees, but these may approximately be reduced to miles. A degree of latitude at the equator is about 69.3 miles in length; at the poles, about 68.72. A degree of longitude is 0 at the poles, about 53 miles on the 40th parallel, and about 69.16 miles long on the equator.
3. A circumference is 360° ; a quadrant is 90° , or $\frac{1}{4}$ of a circumference; a sextant is 60° , or $\frac{1}{6}$ of a circumference; a sign is 30° , or $\frac{1}{12}$ of a circle or circumference. 15° correspond to one hour of time.
4. In teaching longitude and time, use first only that part of the diagram (see illustration) giving the poles, the equator, so many parallels as may be desired, and the meridians. Explain how to locate places on the earth or positions of vessels at sea, on the great lakes, etc., and be sure that pupils understand the primary ideas before attempting journeys.

After they have grasped clearly the fundamental ideas, then give problems of location, undertake journeys, etc., and use the remainder of the illustration for similar illustrations and trips.

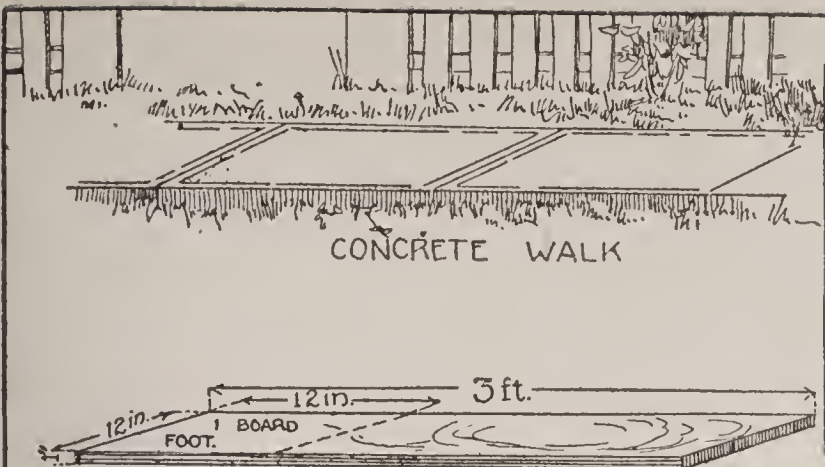


FIG.1. BOARD FEET

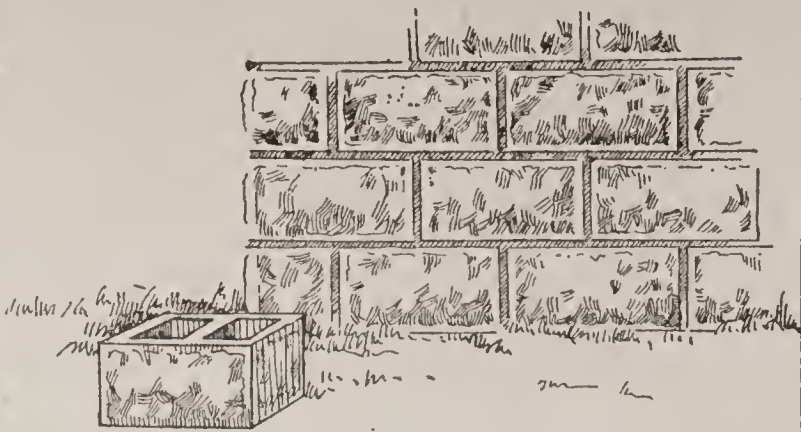


FIG.2. CEMENT BLOCKS

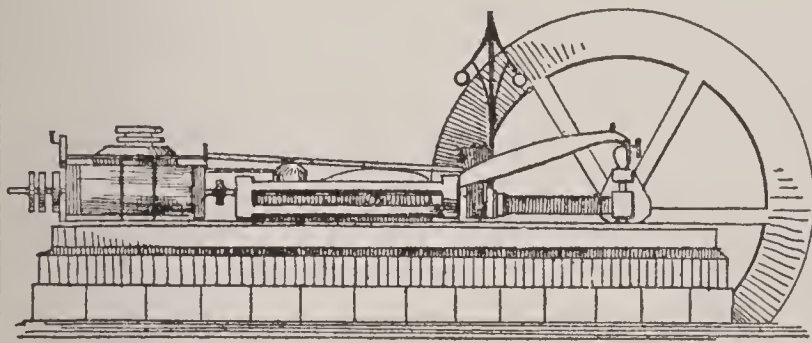


FIG.3. STATIONARY ENGINE

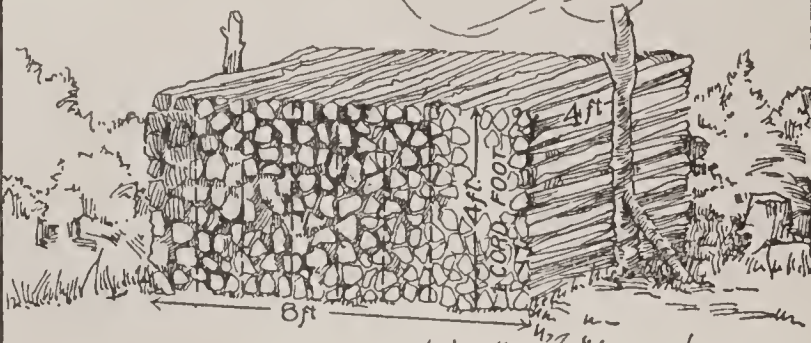


FIG.4 CORD WOOD

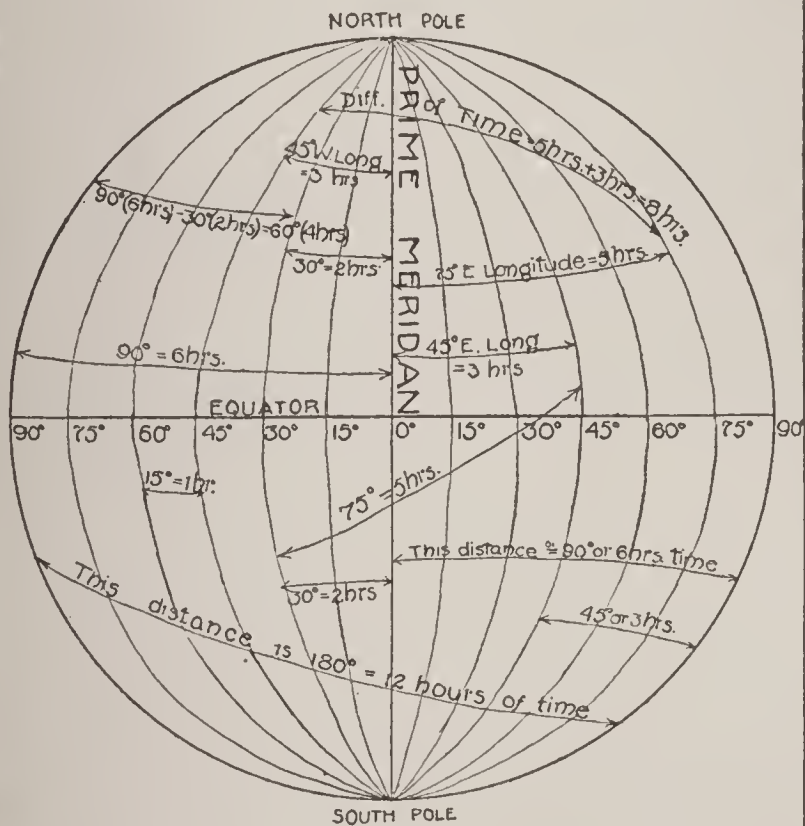


FIG.6. LONGITUDE and TIME

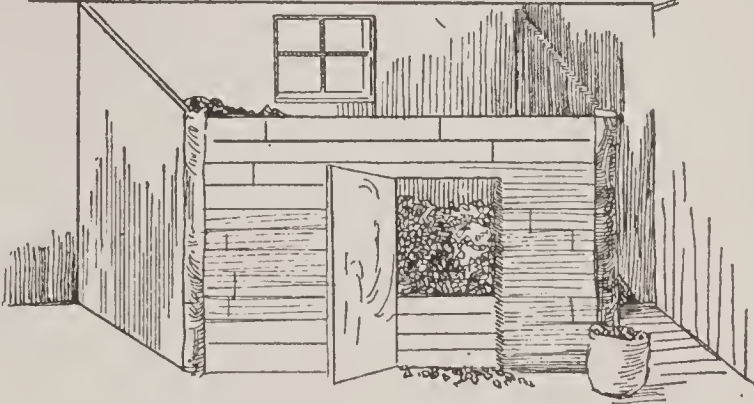


FIG.5 COAL IN BIN

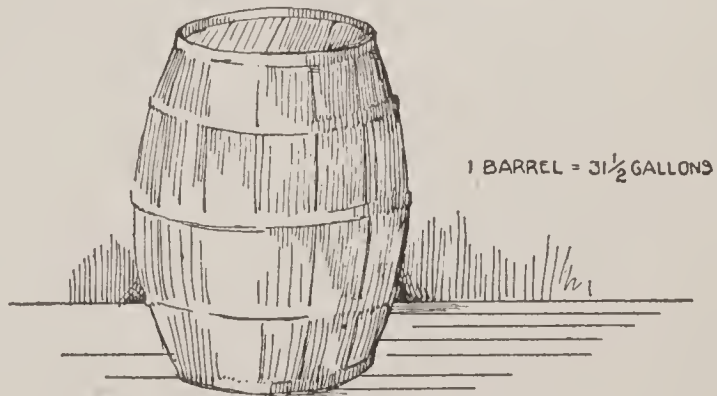


FIG.7 CONTENTS OF BARREL.

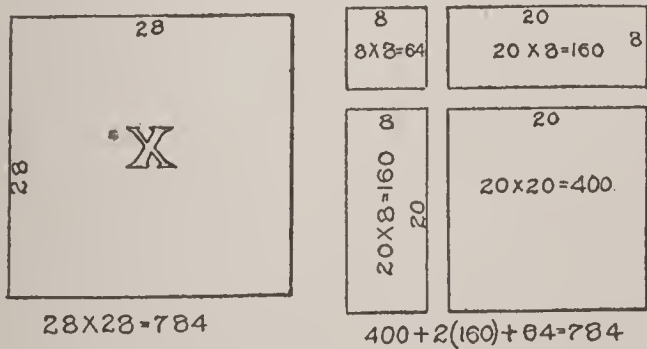


FIG.8. SQUARE ROOT

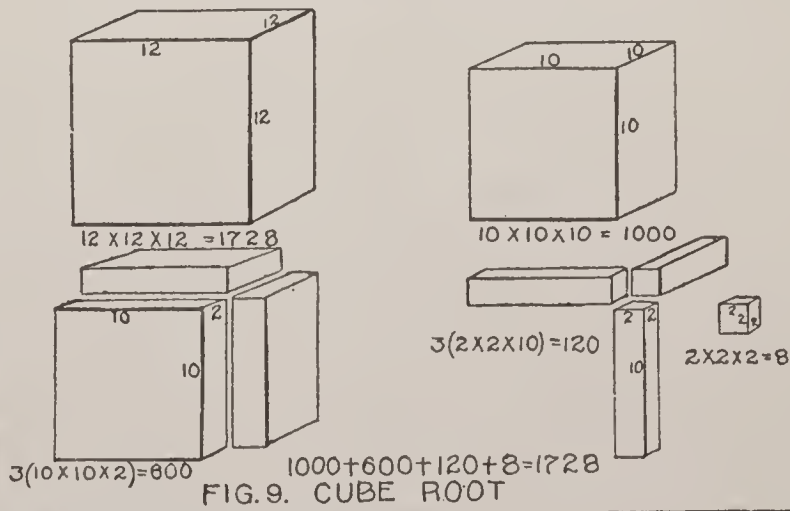


FIG.9. CUBE ROOT

MEASUREMENTS.

SQUARE ROOT

1. Finding the power of a number is called involution. Finding the root of a number is called evolution. Both processes are used in square root, the former for the purpose of explaining the latter.
2. The common or practical applications of square root are:
 - a. In finding the dimensions of the square when the area is given.
 - b. In finding the third side of a right triangle when two of the sides are given.
 - c. In comparing similar surfaces.
3. Simple rules.
 - a. The square root of the area is one side of a square.
 - b. The square root of the sum of the squares of the other two sides is the hypotenuse.
 - c. From the square of the hypotenuse, subtract the square of the given side; the square root of the difference is the missing side.
 - d. The corresponding dimensions of similar surfaces are to each other as the square roots of their areas.

Conversely, it follows that similar surfaces are to each other as the squares of their corresponding dimensions.

ILLUSTRATIONS

A square farm contains 2809 acres. How long is one side? Illustrate.

A square room contains 3025 square feet. What is the length of one side? Illustrate.

Two rafters, each 24 ft. long, meet at the ridge of the roof 12 ft. above the body of the house. How wide is the house? Illustrate.

A lady has a circular flower bed 10 ft. in diameter. She wishes to make one four times as large. What must be its diameter?

4. Processes.
 - a. Show by the illustration that the square of a number consisting of two figures is equal to the square of the tens, plus twice the product of the tens by the units, plus the square of the units. Show how reversing enables one to find the square root.
 - b. If the number is a perfect power, one-half its prime factors multiplied together will give its square root.

CUBE ROOT

1. See definitions under Square Root.
2. The practical applications of cube root are:
 - a. In finding the length of one side of a cubical object, as a box, a bin, a tank, or a cistern.
 - b. In comparing round with rectangular solids.
 - c. In comparing similar solids with each other.
3. Simple rules.
 - a. The cube root of a solid is the length of one side.
 - b. The contents of a sphere are obtained by multiplying the cube of the diameter by .5236.
 - c. The contents of a rectangular solid are obtained by multiplying length, breadth, and thickness together.

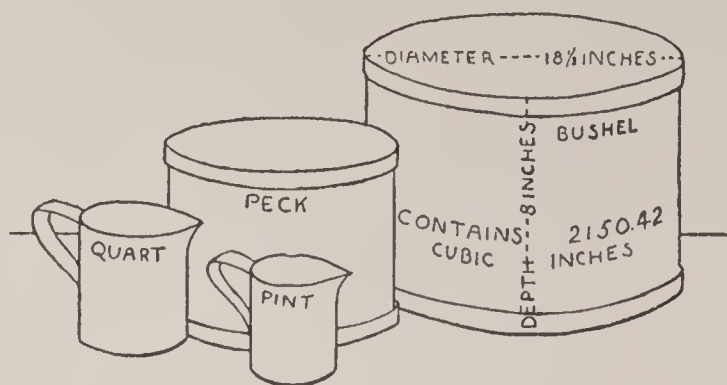
To compare with the contents of a sphere, the dimensions must be of the same denomination.
 - d. Similar solids are to each other as the cubes of their like dimensions.
 - e. The corresponding dimensions of similar solids are to each other as the cube roots of their volumes.

DRY MEASURE

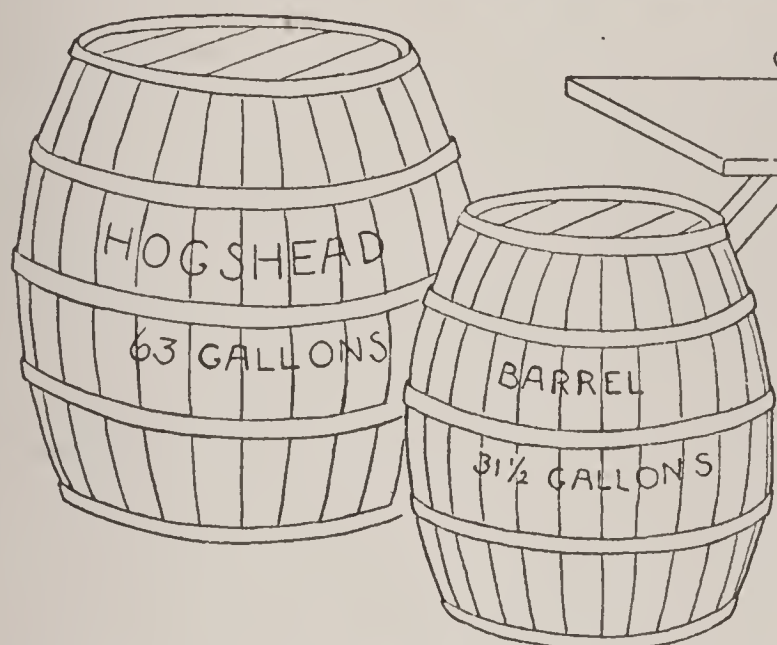
2 PINTS = 1 QUART (QT)

8 QUARTS = 1 PECK (PK)

4 PECKS = 1 BUSHEL (BU)



LIQUID MEASURE



4 GILLS (GI.) = 1 PINT (PT.)

2 PINTS = 1 QUART (QT.)

4 QUARTS = 1 GALLON (GAL.)

31 1/2 GALLONS = 1 BARREL (BBL.)

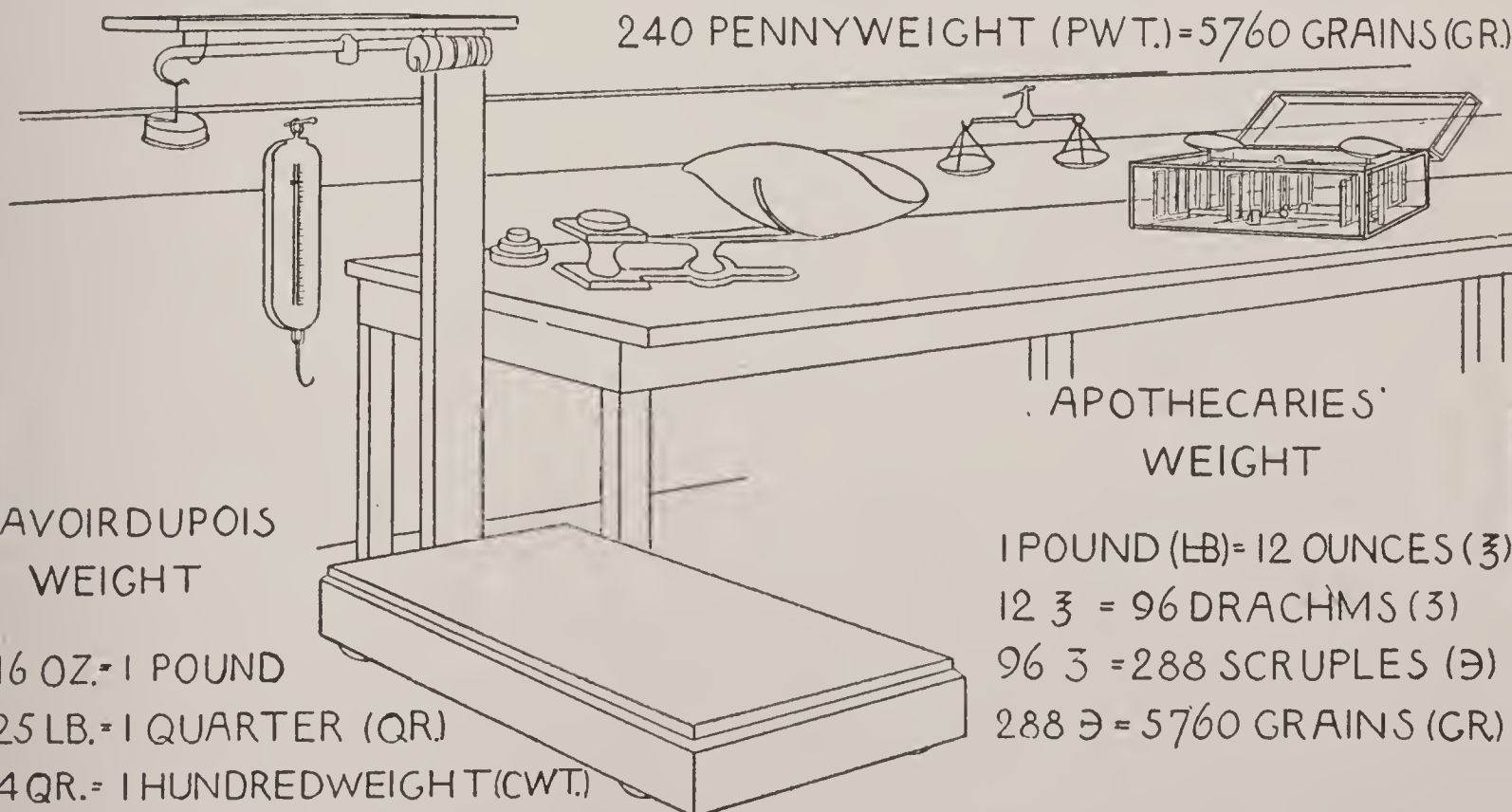
2 BARRELS = 1 HOGSHEAD (HHD)

WEIGHTS

TROY WEIGHT

1 POUND (LB) = 12 OUNCES (OZ.) =

240 PENNYWEIGHT (PWT.) = 5760 GRAINS (GR.)



AVOIRDUPOIS WEIGHT

16 OZ. = 1 POUND

25 LB. = 1 QUARTER (QR.)

4 QR. = 1 HUNDREDWEIGHT (CWT.)

20 CWT. = 1 TON (T.)

1 LB. AVOIR. = 7000 TROY GRs.

APOTHECARIES' WEIGHT

1 POUND (LB) = 12 OUNCES (℥)

12 ℥ = 96 DRACHMS (ʒ)

96 ʒ = 288 SCRUPLES (ʒ)

288 ʒ = 5760 GRAINS (GR.)

PROBLEMS

A cubical cistern contains 54872 cubic feet. How deep is it?
A ball on a tower is 3 feet in diameter. If each cubic foot weighs two pounds, how heavy is the ball?
A bin is 24 feet long, 10 feet wide, and 6 feet deep. How many cubic feet of wheat does it hold?
If the ball mentioned above were 5 feet in diameter instead of 3 feet, what would it weigh?
A bushel measure in the form of a cylinder is $18\frac{1}{2}$ inches in diameter and 8 inches deep. If a peck measure is of the same shape, what will be its dimensions?

4. Process.
- a. The cube of any number that can be separated into tens and units equals the cube of the tens, plus three times the square of the tens multiplied by the units, plus three times the tens multiplied by the square of the units, plus the cube of the units.
 - b. Remembering that the units figure used as a multiplier is found in the root on the right of your number, and using the illustration herewith (also blocks if you have them), you can readily find the cube root of a number by analyzing the facts shown in (a).

ILLUSTRATION

Find the cube root of 421875.

$t^3 + t^2 \times u \times 3 + t \times u^2 \times 3 + u^3 =$	421,875	t	u
$t^3 =$	343,000	70	+ 5
	<hr/>		
	78,875		
$t^2 \times 3 = 70^2 \times 3 = 14,700$			
$t \times u \times 3 = 70 \times 5 \times 3 = 1,050$			
$u^2 = 5 \times 5 = 25$			
	<hr/>		
15,775			

$78,875 = (t^2 \times 3 + t \times u \times 3 + u^2) \times u$

Do not forget that the unit figure in the root is one of the factors in every product.

PROBLEMS

- 1. How many bushels of oats in a bin 12 feet long, 6 feet wide, and 8 feet deep?
- 2. I bought the s. w. $\frac{1}{2}$ of n. e. $\frac{1}{4}$. Make a diagram showing where my farm is and how many acres it contains.
- 3. How many acres in 8 sections? If I paid \$50 an acre for 5 sections and \$35 an acre for the other 3 sections, what did the land cost me?
- 4. Locate Minneapolis, Minn., Galveston, Tex., and Raleigh, N. C., geographically.
- 5. What will it cost at 35 cents per sq. yd. for plastering and 15 cents per roll for papering, to plaster and paper the walls and ceiling of a room 15 feet long, 12 feet wide, and 9 feet high?
- 6. What will it cost to shingle a roof 22 feet long, 6 feet rise in the center, house 16 feet wide, the shingles to have $4\frac{1}{2}$ inches exposed, if I pay \$2 per thousand for laying the shingles and 8 cents a pound for 4d nails, supposing it takes 1000 shingles for each 120 square feet and $5\frac{1}{2}$ pounds of nails for each 1000 shingles?
- 7. If I pay \$2.25 per thousand for laths, and \$6 for putting them on, what will it cost me to put the laths on the walls and ceiling of the room mentioned in problem 5?

- 8. How many square feet in 1,000 boards 18 feet long, 12 inches wide, 1 inch thick?
- 9. I bought a pile of wood 210 feet long, 8 feet wide, 8 feet deep, at \$4.50 per cord. What did it cost me?

FARM MEASURES

I. TO MEASURE NEW HAY. (All measures in feet.)

$$\frac{\text{Length} \times \text{height} \times \text{breadth}}{500} = \text{number of tons in mow.}$$
$$\frac{\text{Length} \times \text{height} \times \text{breadth}}{300} = \text{number of tons in a long stack.}$$

To get the contents of a round stack of hay, measure the distance around the stack in yards, multiply this figure by itself and by four times the height in yards. Mark off two places on the right.. The result is cubic yards. Divide the result by 20 to get the number of tons.

Note.—These measures are approximate only. The estimate for old hay is 400 to 450 cu. ft., not 500; and of well-settled timothy hay, 350 to 400 cu. ft.

II. TO MEASURE GRAIN IN A WAGON BOX.

An ordinary wagon box is 10½ ft. x 3 ft.
For each inch in depth it will hold 2 bushels of grain.
For each inch in depth it will hold 1 bushel of ear corn.

III. TO MEASURE EAR CORN IN THE CRIB. (Measure in feet.)

Multiply length by width by depth, and this product by 4½; point off one decimal place. The result is the number of bushels in the crib, if of average corn.

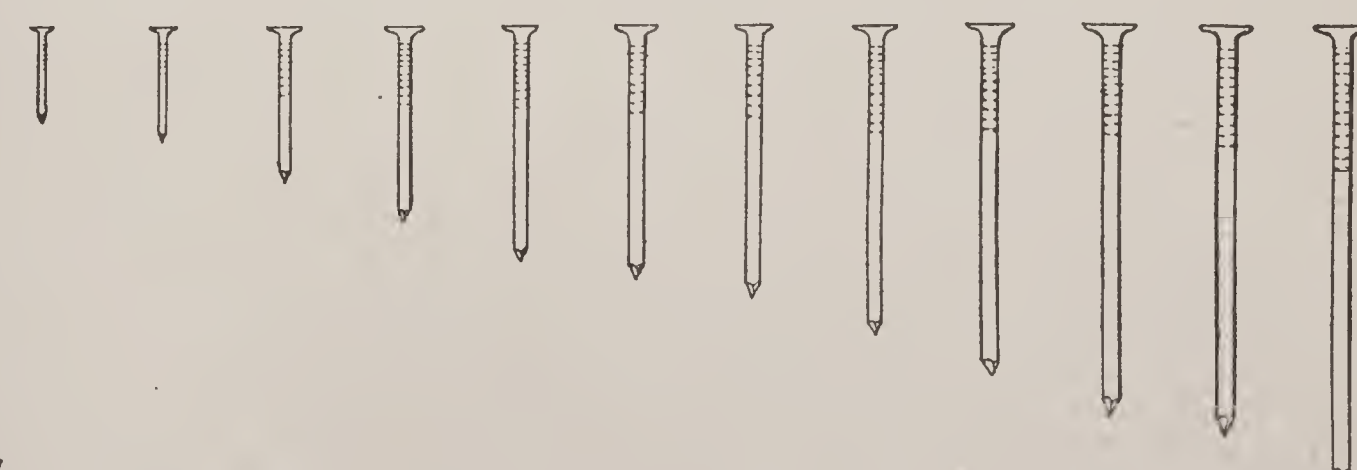
IV. TO MEASURE GRAIN IN A BIN OR BOX.

Level the grain and multiply length by width by depth, and this product by 8; then point off one decimal place. The result is the number of bushels in the bin or box.

V. TO FIND THE NUMBER OF GALLONS IN A CASK

Multiply the square of the mean diameter in inches by the length in inches, and the product by .0034. The result is the number of gallons in the cask.

TABLES FOR BUILDERS
COMMON NAILS



SCALE $\frac{1}{4}"=1"$	SIZE	3d	4d	6d	8d	10d	12d	16d	20d	30d	40d	50d	60d
	LENGTH	1 $\frac{1}{4}"$	1 $\frac{1}{2}"$	2"	2 $\frac{1}{2}"$	3"	3 $\frac{1}{4}"$	3 $\frac{1}{2}"$	4"	4 $\frac{1}{2}"$	5"	5 $\frac{1}{4}"$	6"
	NO. TO LB	500	300	165	90	62	45	35	24	18	13	10	8

NAILS.

SHINGLES

Twice the length of the rafters \times the length of the building \times 9 gives the number of shingles with 4 inches exposed. If $4\frac{1}{2}$ inches are to be exposed, multiply by 8; if 5 inches, by $7\frac{1}{5}$. A common estimate is 1000 shingles to 100 sq. ft. Each 1000 shingles requires about 5 lbs. of shingle nails.

TO ESTIMATE PAINT

The amount of paint required will vary according to the thickness of the paint, the conditions of the surface to be painted, etc.; but it is a fair estimate to divide the whole number of square feet by 200. That will give about the number of gallons required for two coats.

LIME

For 100 sq. yards of plaster, 1 coat requires 2 bbls. lime; 2 coats requires $3\frac{1}{2}$ bbls. Laying 1000 bricks requires 1 bbl. of best lime.
100 cu. ft. of wall requires 3 bbls. of best lime.

PLASTER OF PARIS

Hard finish on 100 sq. yards requires $\frac{2}{3}$ bbl.

LATH

1600 lath are required for 100 sq. yards.

ESTIMATED NUMBER OF BRICK

Brick work is usually charged for on the basis of 1000 bricks.

$22\frac{1}{2}$ bricks are required for each cu. ft. of wall.

Laid on the flat side, $4\frac{1}{2}$ bricks make a square foot; on the edge it generally takes 9 (bricks being usually 8 in. long by 4 in. wide). Bricklayers and masons ordinarily allow for one-half the space taken up by doors and windows in a wall.

STONE MEASURING

A perch, in stone masonry, is $16\frac{1}{2}$ ft. long, 1 ft. thick, and $1\frac{1}{2}$ ft. high. It contains $24\frac{3}{4}$ cu. ft.

To find the contents of a stone wall in perches, multiply the number of cu. ft. by .0404, or divide by $24\frac{3}{4}$.

CORD WOOD

A cord of wood is 8 ft. long, 4 feet wide, and 4 ft. high. It contains, therefore, 128 cu. ft.

To measure a pile of cord wood, multiply length by breadth and this by height. Divide by 128. The answer is in cords.

WALL PAPER

The usual rule is to make no allowance for openings and to count three rolls to each 100 sq. ft. Rolls are usually $1\frac{1}{2}$ ft. wide and 24 ft. long, making 36 sq. ft. to the roll. Allowance must be made for lapping and for matching figures.

LENGTH OF RAFTER

To give $\frac{1}{3}$ pitch, multiply width of building by .6.

To give $\frac{1}{2}$ pitch, multiply width of building by .7.

To that must be added the projection desired at eaves.

CAPACITY OF A CIRCULAR CISTERN

Reduce the dimensions to feet. Square the diameter, and multiply by the depth, and this by .7854.

To find gallons, multiply by $5\frac{1}{8}$.

To find barrels, multiply by .1865.

A cistern 8 ft. in diameter holds 1 bbl. for every inch in depth.

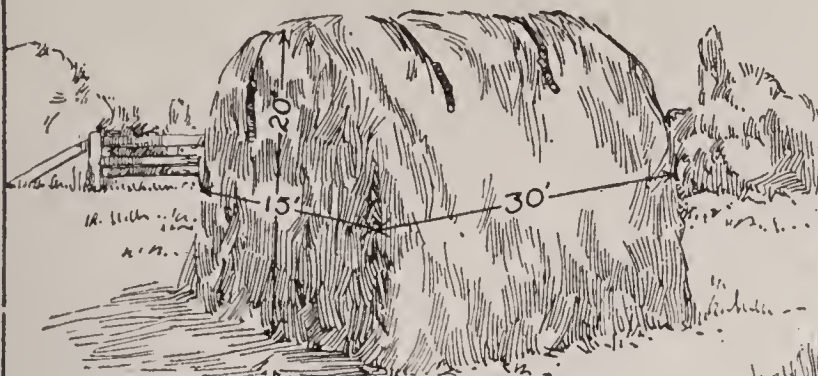


FIG.1. HAY IN STACK.

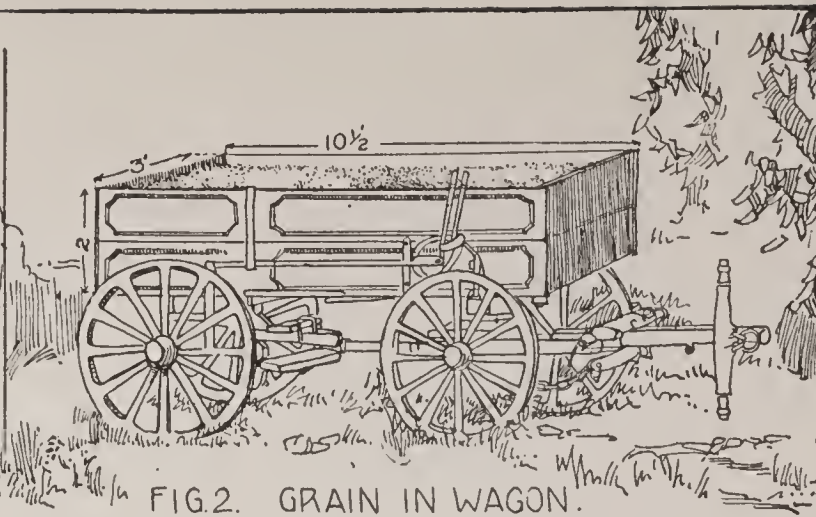


FIG.2. GRAIN IN WAGON.

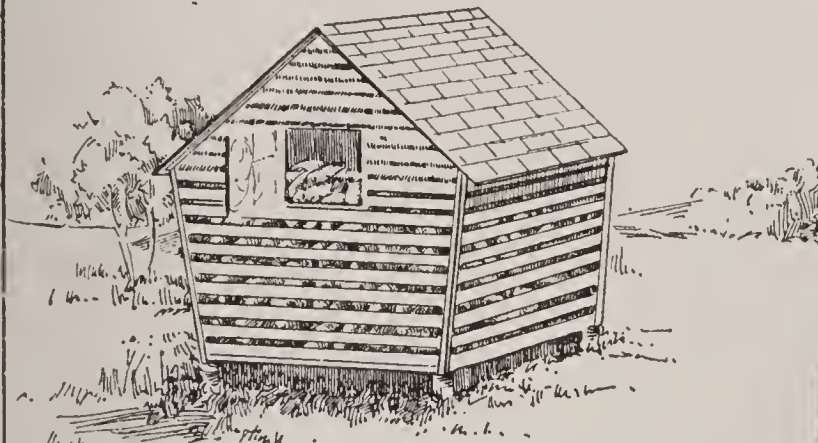


FIG.3. CORN IN CRIB.

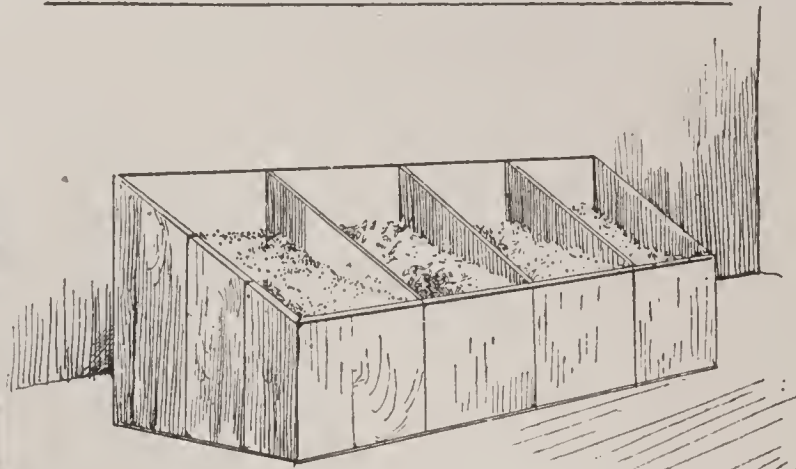


FIG.4. GRAIN IN BIN.

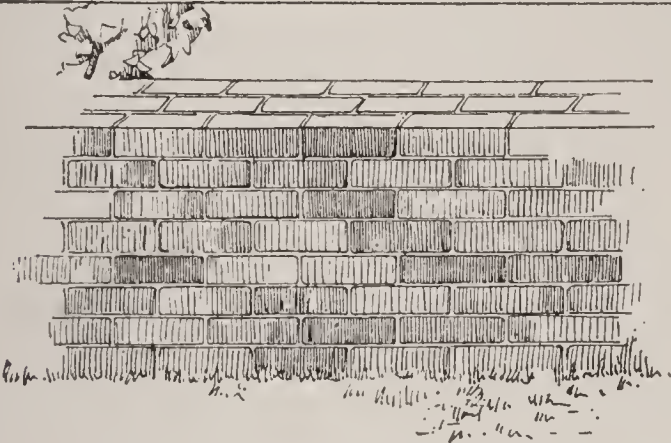


FIG.5. BRICKS IN WALL

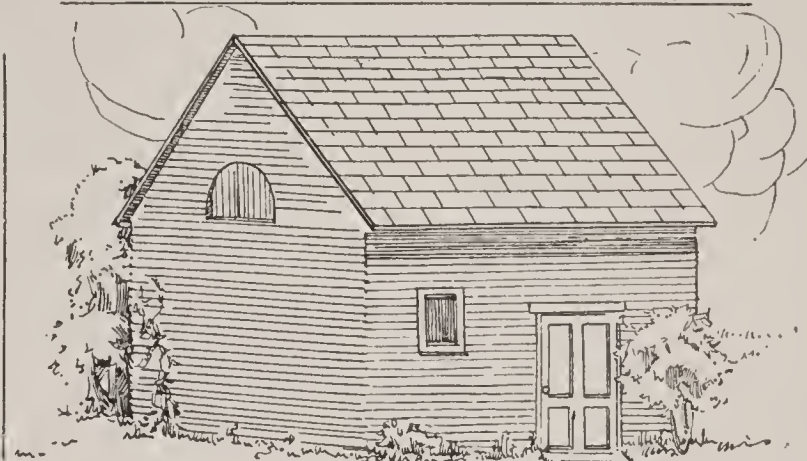


FIG.6. SHINGLES and PAINT.

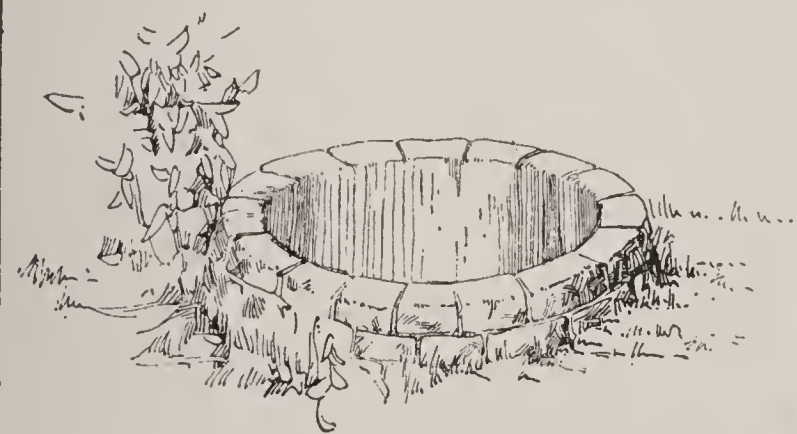


FIG.7. CONTENTS OF CISTERN.

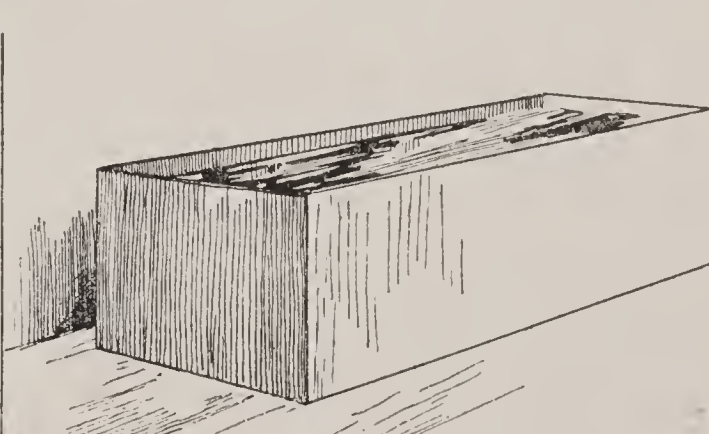


FIG.8. RECTANGULAR TANK.

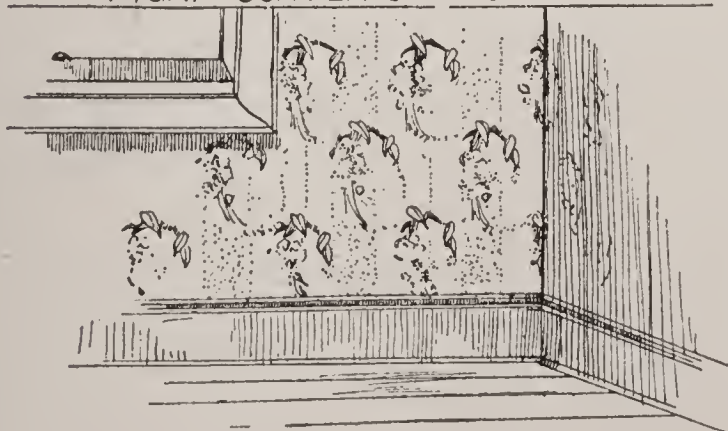


FIG.9. PAPERING and PLASTERING.

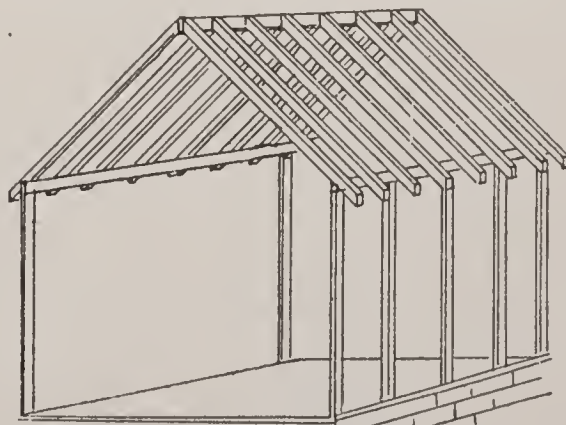


FIG.10. RAFTERS

MEASUREMENTS.

CAPACITY OF A RECTANGULAR TANK OR CISTERN

Length \times width \times height (in feet).

For gallons, multiply by $7\frac{1}{2}$ (or, more exactly, by 7.48).

For barrels, multiply by .2375.

TO MAKE CONCRETE WALKS

Obtain 1 barrel of Portland cement, 2 barrels of clean sharp sand, and 6 barrels of broken stone, gravel, or hard burnt brick.

For the first or lower layer, use 2 parts of Portland cement, 2 parts of sand, and 5 parts of broken stone.

For surface layer, use 1 part Portland cement and 1 part sand.

TO MAKE CEMENT BLOCK

Use 1 barrel of Portland cement with each 6 barrels of sharp sand.

Use metal moulds where possible.

HORSEPOWER

By horsepower is meant the power it takes to lift 33,000 lbs. one foot in one minute, or 550 lbs. at the rate of one foot per second.

Each horsepower in a boiler requires for each hour 30 to 35 lbs. of water. A gallon of pure water weighs $8\frac{1}{3}$ lbs.

About a pound of coal is required to evaporate one gallon of water.

The available power is only about 85% of the nominal power.

WEIGHT OF COAL

1 cu. ft. bituminous weighs about 72 lbs.

1 cu. ft. anthracite weighs about 80 lbs.

1 ton of coal is worth two cords of wood for the production of steam.

Level the coal in a bin. Multiply length, breadth, and depth together in feet. The product is cubic feet. Multiply as above. Divide by 2000 to get short tons, by 2240 to get long tons.

LUMBER

To find the contents of a board in square feet, multiply the length in feet by the width in inches and divide the product by 12.

To find the contents of joists or scantlings in square feet, multiply the length, thickness, and width together, and divide the product by 12.

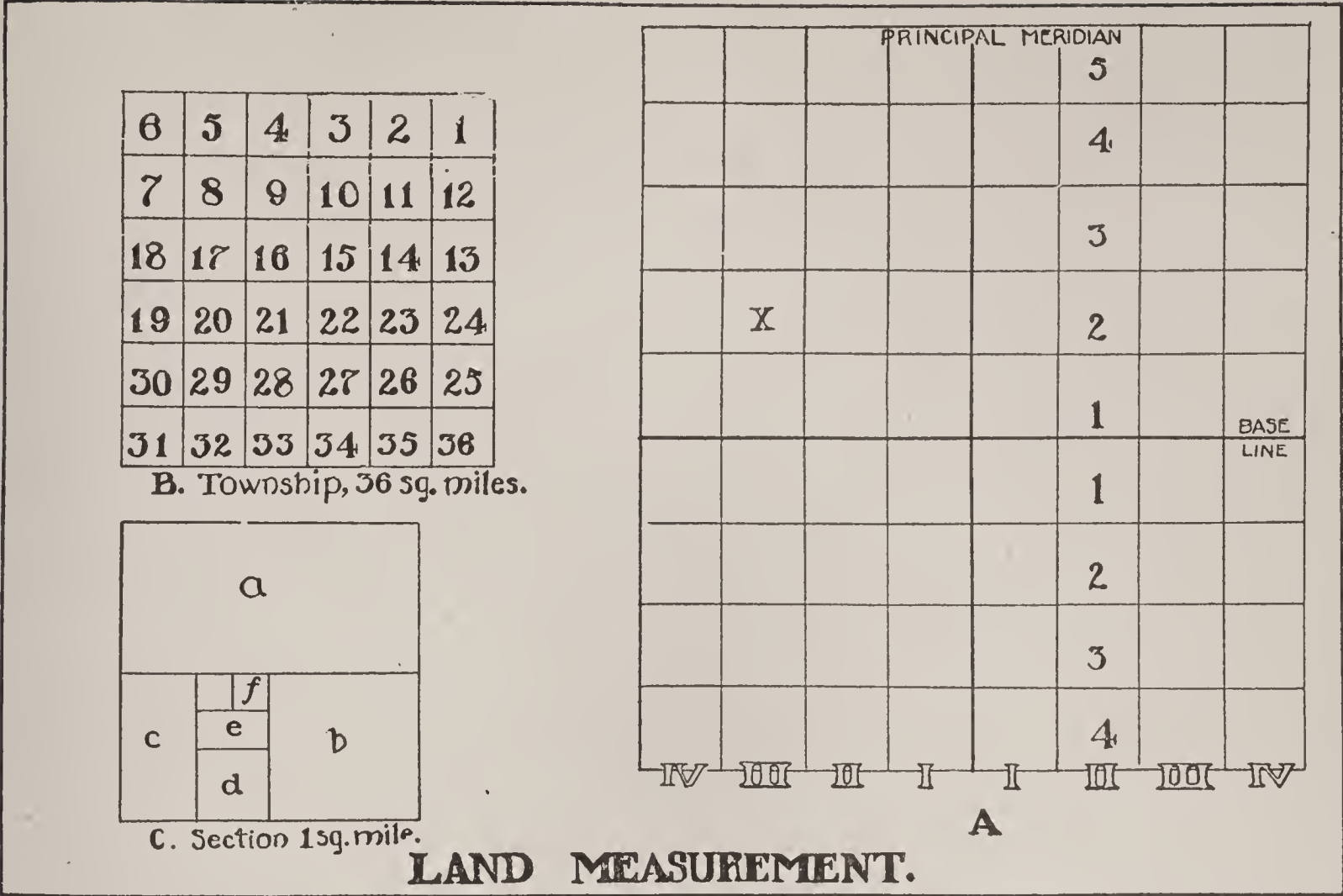
LAND MEASUREMENT

For convenience in describing land, the following system is used in many of the states.

A line known as the base line is established along a parallel. On that and at right angles are established principal meridians. Township lines are then drawn parallel to each, six miles apart. Those extending in a north-and-south line form ranges, the ranges being numbered east and west of the principal meridian, as shown by Roman numerals in Fig. A. The townships are numbered north and south of the base line. To describe a township, give its number north or south and range east or west; thus, X township is township 2 north, range 3 west.

Each township contains 36 sections, numbered by beginning at the northeast corner, and counting west to 6, numbering 7 south of 6 and then east to include 12. Drop down one and then count west, as before, etc.

Each section contains 640 acres and the usual divisions are shown in C, and are described as shown in the cut on the next page. Abbreviations are used for directions and their combinations.



- a is n. $\frac{1}{2}$, and contains 320 acres.
- b is s. e. $\frac{1}{4}$, and contains 160 acres.
- c is w. $\frac{1}{2}$ of s. w. $\frac{1}{4}$, and contains 80 acres.
- d is s. e. $\frac{1}{4}$ of s. w. $\frac{1}{4}$, and contains 40 acres.
- e is s. $\frac{1}{2}$ of n. e. $\frac{1}{4}$ of s. w. $\frac{1}{4}$, and contains 20 acres.
- f is n. e. $\frac{1}{4}$ of n. e. $\frac{1}{4}$ of s. w. $\frac{1}{4}$, and contains 10 acres.

To describe any tract of land, tell first its exact location in the section; then give in order the number of the section, the township north or south, the range east or west, and the principal meridian from which the survey begins.

To find the area in acres of any rectangular tract, multiply the dimensions in rods and divide by 160, or multiply the dimensions in chains and point off one decimal place.

GENERAL ESTIMATES

The statements given below are approximations only, but they will be found useful in making what is known as "rough estimates."

A mason, with a helper, is supposed to be able to lay in mortar 1400 bricks in 8-inch work, or 2000 bricks in 12-inch work. He is also supposed to be able, with a helper, to lay 3 cubic yards of stone in mortar per day.

The net weight of fat beeves is about $\frac{3}{5}$ of the live weight; of fat sheep, $\frac{1}{2}$; of fat hogs, $\frac{1}{3}$; and of fat fowls, 7-10.

A day's work for a painter is from 80 to 100 square yards of plain outside work, 40 to 70 square yards of inside work.

The vertex of a triangle is the point where the sides which rise from the base meet. The altitude is the distance from the base to the vertex. The area of a triangle is obtained by multiplying together the base and altitude and taking one-half the product.

In carpeting a room, allowance must usually be made for waste from matching,

and corners must be counted twice if borders are used, because one-half of each corner is lost in making.

Wheat, according to quality, will make from 25 to 33 pounds of flour per bushel, allowing one-sixth for toll.

A cask of lime weighs 240 pounds and will absorb $2\frac{1}{2}$ times its bulk, or $2\frac{1}{4}$ times its weight of water in slacking.

In paving about 75 bricks laid edgewise, or 40 bricks laid flatwise, are allowed for one square yard.

Laths are usually 4 feet in length and are put up in bundles of 100 laths each. 100 laths, put $\frac{1}{4}$ of an inch apart, cover $5\frac{1}{2}$ square yards.

PROBLEMS

1. What is the net weight of three herds of 140 cattle each, if they average 1700 pounds on the hoof?
2. What is the net weight of 560 hogs averaging 285 pounds each?
3. A farm is in the form of a triangle, having a base 2100 rods long and the distance to the vertex 1750 rods. How many acres in it?
4. How many pounds of flour, allowing $\frac{1}{6}$ for toll, in 450 bushels of wheat?
5. A man has 4700 sheep at pasture and 240 chickens in his poultry yard. He sold 6 pounds of wool per sheep at 15 cents a pound. He then sent $\frac{2}{3}$ of the sheep and all the chickens to market, agreeing to accept 12 cents a pound for the sheep and 14 cents a pound for the fowls, net weight. If the sheep averaged 80 pounds on the hoof and the chickens averaged 3 pounds alive, what did the farmer get for his wool, the sheep sold, and the fowls?
6. What will it cost to build a 12-inch brick wall, 24 feet high and 50 feet long, laid in mortar, at \$9 per 1000 for bricks, if the mason is paid \$4 per day and his helper \$2 per day?
7. If a crib is 36 feet long, 12 feet wide, and 15 feet deep, how many bushels of ear corn will it hold? If made into a bin, how many bushels of oats will it hold?
8. It is 17 yards around a stack of hay, which is 21 feet high. How many long tons of hay will it hold, being a round stack?
9. A long stack by the side of this is 30 feet long, 20 feet high, and 9 feet wide. How many tons of hay does it hold?
10. The average diameter of a barrel is 30 inches and its length 42 inches. How many gallons will it hold?

NATURE STUDY

Man is largely dependent upon the life about him. The study of plants and animals is therefore always interesting and instructive. The best plan of making this study is determined by circumstances. The material at hand, the time of year, the opportunity to obtain illustrative material, the interest of the pupil—all these and other things should be taken into careful consideration. The best results can never be secured by half-way, indifferent, or hasty effort. Neither the charm nor the secrets of nature are open to one who approaches her without enthusiasm and without definite purpose.

The object of the outline studies of Plants, Animals, and Miscellaneous Topics given herein is to indicate a method of study of the subject treated and other kindred subjects. It is intended to be suggestive, not exhaustive. The studies are not designed to remove incentive to individual effort. They may, therefore, be modified to fit the needs of the children—using all or such part as the occasion may demand.

As a rule, no lesson should be given without earnest thought and careful preparation. The object of the lesson, the occasion for giving it, the means to be used, the best method of impressing individual pupils, and the class as a whole—all these must receive thoughtful consideration. Otherwise the pupils may go away feeling that the lesson had no point to it; or, what is worse, feeling that they have been given a jumble of information by one who was not posted.

A child must be curious to know—must have his appetite for knowledge whetted—in order to have interest. Interest is the key to the acquisition of information. But information that is not organized is not of great value. It must be arranged according to a definite system and have some purpose in view. More than this, the mind of the pupil must itself be exercised and led to form desirable habits of thinking and of developing. Another hungry person is not fed or nourished by your having eaten a good meal. And the pupil must be led to see that he is to be the gainer in the struggle of life by what you are teaching him.

GENERAL DIRECTIONS

1. Be a learner yourself. It is impossible for you to go to or from home or your school without coming into contact with the life about you.
2. Make your own lessons. Don't confine yourself to the things of any one book or to the views or methods of any one person. Study your surroundings and the children you wish to instruct; then select, adapt, or pick out new material altogether.
3. Be a live wire. Without being yourself curious you cannot make your pupils inquisitive; unless they show a disposition to inquire, they lack interest; without interest, you cannot get attention; without attention your effort to instruct is largely wasted. Be enthusiastic if you would create enthusiasm.
4. Exercise common sense. A road that begins nowhere and goes nowhere does not interest you. Neither does it interest a child. Instead of antagonizing John Jones when you find him eating a good apple, make a friend of him and his mates by using the opportunity for a talk (lesson) on Fruits, the different kinds, where and how they grow, their enemies, how they get

to market, their value for cooking, for eating, for preserving, for canning, etc. Finally bring the talk around to Apples (see suggestive lesson) ; say you are fond of a good apple yourself and of apple pie, but you believe the pupils would not be pleased if, during school hours, you sat at your desk eating an apple instead of trying to help them in a recitation. Thus show John Jones and the school that it is all right to eat an apple, but all wrong to eat it at the wrong time and at the wrong place. Incidentally give a lesson on Nature Study.

- 5. Substitute a nature lesson. Omit the arithmetic, the geography, or the reading—without warning, if necessary, but not without preparation—and substitute a lesson or a talk on some plant or some animal. Sometimes it is well to give a few facts, to show the road, to wake up the pupils and get them to inquiring. If this is rightly done they will be greatly benefited and will investigate for themselves. If the boy goes home and talks or asks intelligently about the Beet or Caterpillar, he is being educated, and possibly he is educating others.
- 6. Every good thing costs. If you want it, you must pay for it. Let pupils see that valuable knowledge about plants and animals is accurate knowledge. And accurate knowledge comes only through careful observation and afterwards arranging what is learned systematically.
- 7. Make the pupils want to know about plants and animals. An apple with a hole made by the apple maggot ; some beet sugar ; a cocoanut in the husk ; wheat mixed with cheat seed and with other cereals ; a picture of the parts of a beef, or of the water buffalo—any of these objects rightly handled will soon arouse interest.
- 8. Show pupils how to get knowledge. Are the fruit trees of the neighborhood troubled by caterpillars or with some disease? Show pupils how to study the caterpillar and how to get rid of it. Are flies troublesome in the house? Where do they come from, how do they live, how not to have them? Are you fond of pumpkin pies? Best soil, preparation, methods of propagation, improvements in quality, of pumpkins, squashes, cucumbers, melons—all open the way for investigation properly guided.
- 9. How to use knowledge. All knowledge of plants and animals is useful. It may make a better posted and a wiser farm boy or farm girl ; a more successful market gardener ; a more interested fruit grower, or grower of vegetables in the home garden. This knowledge is also useful in other school studies—geography, for instance.

NATURE STUDY OBSERVATION

I. THE WEATHER.

- 1. Preparation for observation.
 - a. Blank book and pencil.
 - b. Regular place to keep the book.
 - c. Proper ruling for a record.
 - d. Thermometer ; arrow ; rain gauge ; regularity.
- 2. Things to observe.
 - a. See following chart.

DATE	TEMPERATURE			DIRECTION OF WIND			MOISTURE			CLOUDS			Special Events
	9 A.M.	Noon	6 P.M.	9 A.M.	Noon	6 P.M.	9 A.M.	Noon	6 P.M.	9 A.M.	Noon	6 P.M.	
October													
1	56	65	50	N. E.	N. E.	N. W.	Fog	Mist	Rain ½ in.	Cl'dy	Cloudy	Cl'dy	Heavy Dew

This chart should have thirty or thirty-one lines ruled across the page—one space for each day of the month.

The temperature should be recorded at the exact hour. 9 a. m. does not mean 9:30 a. m., nor 6 p. m. mean 7 p. m.

Winds are named by the direction from which they come. A northeast wind means one coming from the northeast, and blowing towards the southwest.

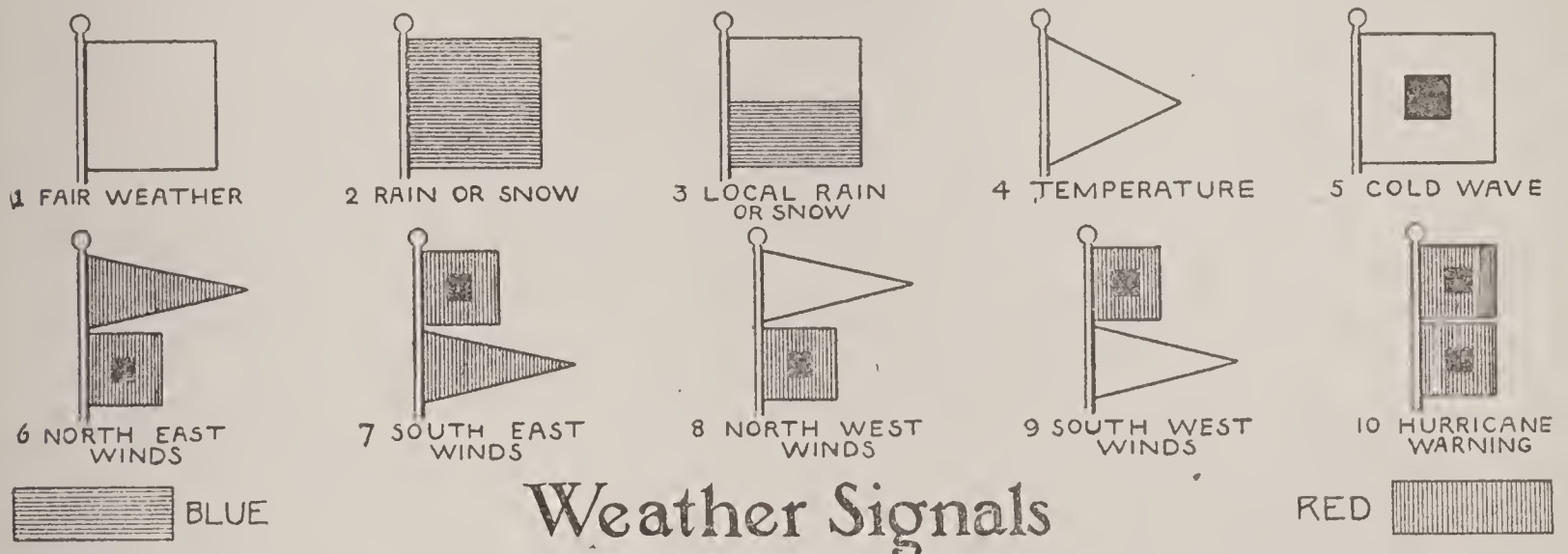
Moisture includes rain, mist, fog, dew, frost, snow. Beginners or young pupils might use only the first and last named.

Beginners and young pupils need note only whether it is cloudy or clear. Older pupils should be acquainted at least with cirrus, cumulus, stratus, and nimbus clouds, and make records accordingly.

Special weather happenings, such as "heavy dew," "hoar frost," "drop in temperature," "cyclone," and things happening out of season, belong under "Remarks."

Snow must be melted in order to measure the amount of snow fall. The gauge to measure rain or snow should be so placed as to get the average, not extremes.

If desired, a set of weather instruments may be kept at school. A certain pupil may be selected each month to make the observations and to record them. Encourage pupils, however, to form the habit of making these observations regularly at home and recording them in a book for the purpose. At certain times give talks on The Weather and The Weather Bureau. Free charts, literature, etc., may be obtained from the Superintendent of the Weather Service at Washington, D. C.



To be of value, this work must be systematic and thorough, not spasmodic and occasional.

- b. After pupils have become somewhat familiar with the making of notes on the character of weather phenomena, they may be led to observe the relation between these phenomena and the weather which they indicate or forecast as likely. Knowledge that a storm is coming may help the farmer in haying, in harvesting grain, or in cultivating a field; may warn the sailor; may lead the seedsman to protect his seedbed; or may give a similar warning to the florist or to the market gardener. See article on WEATHER BUREAU.
- c. In connection with this work, it is well to teach pupils the meaning and the use of signal flags by the Weather Bureau. See illustration of Weather Signals.

II. THE LOCAL CLIMATE.

Many persons think that weather and climate mean the same thing. This is an error. Climate is characteristic; weather is spasmodic or changeable. Weather conditions for a certain period of time help to determine the climate of a place. But elevation above the sea level, distance from the equator or the poles, the average moisture, etc.—all are factors in determining the climate of a place. It is important,

therefore, that such observations be made as will give one dealing with plants and animals a fair knowledge of the average weather conditions. This knowledge is valuable also in considering the questions of proper food and clothing. See article on HOME ECONOMICS.

1. Cultivation, planting, germination, etc.
 - a. Is the ground sloping or flat?
 - b. What is its elevation?
 - c. What effect has the condition of the soil on seed germination?
 - d. What effect has heat on seed germination? On shrub or tree growth?
 - e. What effect has moisture?
 - f. Can climate remedy the results of planting seed or roots too deep in the ground?
2. Arbor Day.
 - a. What has climate to do with the selection of Arbor Day?
 - b. Why cannot trees be planted at any time?
 - c. How do the trees get food?
 - d. Does the place of planting a tree have anything to do with its growth?
3. Preparing and harvesting crops.
 - a. What has climate to do with curing hay?
 - b. Why is the time for cutting grain different in Kentucky and in Canada?
 - c. Influence of climate on market gardening.
 - d. What has climate to do with making maple syrup? With the sugar in beets? With ripening corn? (Find out from some grain market what is meant by "grades" of corn, wheat, oats, etc.)
4. Care of animals and plants.
 - a. What effect on the health of cows, horses, and sheep does proper shelter in cold or wet seasons have?
 - b. Should climate be taken into account in dairying, in sheep shearing, or in catching fur-bearing animals?
 - c. Have the average temperature, moisture, and purity of the air anything to do with plant or animal life?
 - d. What makes fruits, root crops, vegetables, etc., decay when put away for the winter?
 - e. Why does hay mold?
 - f. What causes corn to get musty?
5. Bird Migration.
 - a. What effect has climate on the movement of birds?
 - b. What personal observations have you made? Of what birds?
 - c. What is the effect of climate on bird nesting? Mention five kinds of birds and describe their habits in this particular.
 - d. Do certain birds always live in a certain climate? Explain the answer fully.
 - e. What causes birds to select certain routes in migrating?
6. Special things to observe and note.
 - a. The breaking up of the ice.
 - b. The first and last snows.
 - c. Frosts, kind and when.
 - d. Floods and their causes.
 - e. Thunder storms.
 - f. Specially hot or cold spells.
 - g. The first freeze.
 - h. Effect of freezing on the soil.
 - i. Effect on climate of forest denudiation.

III. WHAT TO NOTE ABOUT HOGS. (See Hog.)

1. General features.
 - a. To what group of animals does the hog belong? Explain.
 - b. Difference between wild and domesticated hogs.
 - c. What traits does the hog manifest? Illustrate from personal observation.
 - d. What causes the difference between "razor backs" and hogs reared to be sold to packers?
 - e. What names are given to the different parts of a hog when prepared for food?
2. Classification.
 - a. According to color.
 - b. According to breeds.
3. Rearing hogs.
 - a. Is a hog wallow healthful? Explain.
 - b. What have you observed about hog pens?
 - c. Would you use pens in raising hogs to eat or for market? Why?
 - d. Would a pig thrive on the same food as a full-grown hog?
 - e. What is good food for hogs? For what purpose?
 - f. What attention do hogs shipped to market require? What about food? Air? Heat?
 - g. What diseases usually attack hogs? What is the cause of each? The cure for each?

Give answers as far as possible from personal observation.
4. Hog products.
 - a. Into what parts is the body of a hog freshly killed usually divided?
 - b. What are certain parts called after being treated or manufactured?
 - c. What chemical substances are used in preserving hog meat? Why?
 - d. What use is made of hog skin?
 - e. What are the bristles used for?
 - f. What is made out of the bones?
 - g. To what use are the entrails put?

Answer as far as possible from personal observation.
5. Miscellaneous.
 - a. What people are forbidden to eat swine? Why?
 - b. Should hogs used as scavengers be made into food?
 - c. To what extent are hogs used as food?

IV. WHAT TO OBSERVE ABOUT CATTLE.

1. What the term includes.
2. The difference between farm cattle and range cattle.
3. What are dairy cattle? Read article on MILK.
4. Why should dairy cattle have different food from cattle raised for their meat? Read the articles on Cow and BEEF.
5. What are the parts of a beef when cut up called?
6. Which parts would you buy? For what purpose? Why?
7. Why does the government require inspection of animals to be slaughtered at stock yards? Is it necessary? Explain.
8. What kinds of cattle are best suited for beef?
9. Are all grasses equally good for beef cattle? Are all grasses equally good for any soil? See article and illustration on GRASSES.
10. Why should cattle have fodder? Corn?
11. What provision for water have you observed? What do you think about it?
12. What clothing is obtained from cattle?
13. What other articles are made from the parts of an ox?

14. What diseases are common among cattle? Causes? Cure?
15. What is refrigeration? On what principle is it based? Is it the same as cold storage? See article on COLD STORAGE.
16. What is corned beef? Beef tea? Pemmican? Beef extract? Dried beef? Deviled tongue? Canned beef? Read article on PEMMICAN.
17. What insects attack cattle? How? What injury results?
18. How can cattle be relieved from these pests? How do they get relief themselves?
19. To what use in agriculture do the Filipinos put the water buffalo?

As far as possible these questions should be answered from personal experience or observation. Parents and teachers will do well to visit dairies, homes for dairy cows, stock yards, fields or ranges, butcher shops, etc., not as mere matters of idle curiosity, but for the purpose of observation, information, and self-protection. When proper, teach children to observe and to learn.

V. FARM OBSERVATIONS.

1. Obtain the Farmers' Bulletins issued by the Secretary of Agriculture and by the Experiment Station of your own state. They suggest much material for observation. See body of this work for full list.
2. Bacteriology.
 - a. Read carefully the article on BACTERIUM in the body of this work.
 - b. Remove from the pupil's mind the idea that all bacteria are harmful. There are useful bacteria as well as injurious ones.
 - c. Make familiar the different names under which bacteria go, as germs, microbes, micro-organisms, bacilli, cocci, etc.
 - d. Show the effects of the life of bacteria:
 - (1) On spreading the infectious diseases of man (yellow fever, smallpox).
 - (2) On fermentation (vinegar, wines, malt liquor).
 - (3) On diseases of the lower animals, fowls, etc.
 - (4) On wounds.
 - (5) In purifying water (sewage, stagnant water, etc.).
 - (6) In enriching soil (dead plants and animals).
 - (7) In giving flavor to butter and cheese.
 - (8) In destroying disease (serum).
 - (9) In diseases of plants (parasites, soil, air, etc.).

This is very important information. The teacher can lead the pupil to observe results only—largely through pictures. If available, a lantern will be valuable. In connection with this, simple explanation may be given of nitrification, denitrification, nodules, putrefaction, bacteria in manure, and nitro-bacteria. (See WATERWORKS.)

3. Chemistry and the Farm.
 - a. Of what are whitewash, calcimine, cement, Bordeaux mixture, and Paris green composed?
 - b. What is their use on the farm or in the home? To what is their life-destroying power due?
 - c. What is carbon? Combustion? A fuel? What is necessary to combustion? What kind of combustion in the school stove? In the pupil's body? Read the article on CARBON.
 - d. What are used in making soap? How are the ingredients obtained? What chemical change takes place when they are combined? Why is some soap injurious? See article on SOAP.
 - e. What is fermentation? How is vinegar obtained? Grape wine? Blackberry wine?
 - f. What do some plants take from the soil? What do other plants add to the soil? What is the chemistry of crop rotation?

- g. What is the basis of the Pure Food agitation? Do all chemicals injure food? Explain from observation. Read the article on PURE FOOD LAWS.
 - h. How can one tell whether the water from a well or spring is good to drink? Why is some water injurious to plants?
 - i. What is the source of carbonate of lime? Of sugar? Of starch? Of salt? Of proteids? What have these to do with digestion? With the lives of plants and animals?
4. Miscellaneous Observations.
- a. What is the effect of mixing humus with clay? Of mixing gypsum? Read the articles on GYPSUM, HUMUS, CLAY.
 - b. What is the effect on watering or fertilizing or propagation of plants of having the soil particles of different sizes?
 - c. What is "heavy" soil? "Light" soil? "Cold" soil? "Wet" soil? "Dry" soil? "Heaved" soil? Cause? How can the nature of a soil be changed?
 - d. What is a lever? What is its principle of operation? What has this to do with farm machinery?
 - e. How do you determine the strength of timber? Of iron, steel, or brass? Is this knowledge of any use in handling farm implements?
 - f. What is meant by force? What is "vital force"? "Cohesive force"? "Catabiotic force"? "Force of habit"? "Force of gravitation"? "Capillary attraction"? "Heredity"? Have these anything to do with the successful growth of farm plants?

(Read the articles in the body of this work on SOIL, SOILING, PHYSICS, FARMERS' INSTITUTES, MENDEL'S LAW, GRAVITATION, CROSS-FERTILIZATION, SERUM THERAPY, PLANT, SEED, etc.)

VI. OBSERVATIONS ON CEREALS.

- 1. Name all the cereals produced in the United States.
 - 2. Which of these are imported? What have you observed about preserving grain that is to be imported?
 - 3. What is the difference (a) in structure, (b) in use, (c) in food value, of:
 - a. Wheat flour?
 - b. Rye flour?
 - c. Oatmeal?
 - d. Corn meal?
 - e. Buckwheat flour?
 - f. Corn starch?
 - g. Rice starch?
 - 4. Of what are most breakfast foods composed? Mention three or four kinds or combinations and their use as human food as observed by you.
 - 5. What cereals are used as food for the lower animals? When have you seen them in bad condition? What was the cause?
 - 6. Get together a sound ear of corn, a decayed ear, a moulded ear, an ear of soft corn, a white ear, a yellow ear, a red ear, an ear of mixed colors, and make an observational study of them as to (a) use, (b) market, (c) propagation.
 - 7. What is chess? Smut? Blight? Rust? Mold? When is corn musty? What effect have these on the value of cereals?
 - 8. What are all the elements of cost of a bushel of five common cereals? What have you observed about their cultivation that might reduce this cost?
 - 9. What is the value of a bushel of corn in making beef? Pork? Milk, cheese, or butter? How do you ascertain this? Use of knowledge in feeding?
- (Read articles on SMUT, RUST, HOG, BEEF, FEEDING OF SCHOOL CHILDREN.)

VII. THE STUDY OF INSECTS.

1. See double-page illustrations accompanying article on INSECTS in the body of this work.
2. How distinguished.
Composed of three parts:
 - a. Head, with eyes, antennae, and mouth parts.
 - b. Thorax, with legs, and wings (if any).
 - c. Abdomen on posterior section.
3. Steps of growth or metamorphoses.
 - a. Egg.
 - b. Larva (possibly nymph-insect).
 - c. Pupa.
 - d. Insect.
4. How destroyed:
 - a. By choking up their breathing pores.
 - b. By poisoned juices flavored to their taste.
 - c. By fire.
 - d. By birds.
 - e. By other insects.
 - f. By hot water.
 - g. By reptiles and fish.
 - h. By poisonous powders.
 - i. By kerosene, soap, oil.
 - j. By carbolic acid.
 - k. By sticky paper.
 - l. By "swatting."
 - m. By water or food charged with chemicals.

What has been observed with regard to each of these methods of destroying insects? What insects are destroyed by each method? Are any of the insecticides injurious to human life? What have you observed about this?

5. How insects are beneficial.
 - a. In fertilization. Observe bees and butterflies.
 - b. In destroying other insects. Observe ladybug, ants, dragon flies, lacewings, wasp, cockroach, spider, stonefly, caddice fly.
 - c. In destroying larvae. Observe the ichneumon fly.
 - d. In producing valuable chemicals. Observe cochineal bug and the lac insect.
 - e. In producing food. Observe the bee, stonefly, caddice larvae (indirectly).
 - f. In producing clothing. Observe the bombycid (bombyx) moth.
 - g. In destroying decaying plants and animals. This is usually done by larvae. Illustrate.
 - h. In destroying garbage. Observe fly, various larvae.

Pupils should be led to observe accurately and to describe intelligently in these and in many other instances. They should not destroy beneficial insects.

6. Injuries from insects.
 - a. Destruction of trees. Observe locust, locust beetle, cicada, katydid, white ant, caterpillar.
 - b. Destruction of grains. Observe Hessian fly, weevil, cricket, chinch bug (cut worm), thrips.
 - c. Destruction of fruits. Observe beetles (curculio), (apple grub), wasp.
 - d. Conveying disease. Observe mosquito, fly, bedbug, botfly (nematoids), blue-bottle fly, blow fly.

- e. Destruction of clothing. Observe clothes moth, cricket, cockroach.
- f. Destruction of books. Observe beetle larvae (bookworm), cockroach.
- g. Destruction of pasturage. Observe grasshopper, chinch bug, ants.
- h. Annoyance and pain to man and lower animals. Observe the chigre, flea, tick, louse, ant, botfly, gnat.
- i. Destruction of vegetables (usually through their larvae). Observe cut-worm, tomato worm, cockchafer, tobacco worm.
- j. Destruction of lumber and furniture. Observe ants (see "Trees" above).
- k. Destruction or annoyance to fowls, birds, etc. Observe louse, tick.
- l. Special household pests. Observe fly, mosquito, bedbug, cockroach, clothes moth, beetle, louse, candle moth, etc.
- m. Miscellaneous destroyers. Observe wasps (social, mud dauber, colonial), chafers, earwig, sawfly, etc.

METHODS IN STUDYING PLANTS

THE STUDY OF THE DANDELION



1. Why selected? Occurrence. Life history short. Interesting habits. Why called "the Peasant's Clock," and the "blowball"?
2. Order. (*Taraxacum*.) What its name means to natural environment (habits); its function and structure, and adaptation to it (see article on DANDELION). Comparison with others of this family.
3. Preparatory Work. Read a story about the dandelion or a poem about it. Have children note it on the way to school and on the way home. Were the flowers open or closed? (Draw pupils out by questions.)
4. Field Lesson. Study the plant at work in its home. Give *all* the pupils questions to be answered by observation. Give *each* pupil something special to find out about roots, leaves, flowers, or fruit. Help them to see. Dig up complete plant and transport to schoolroom. Wash off dirt and keep in water, preferably in glass. General review of what is learned outdoors. Have them tell as much as possible without questioning. Make up a blackboard reading lesson from what has been developed.
5. Indoors Study. Make your approach from the standpoint of function. Plant as a whole, length, height; creeping or upright? Root thick, with long, tapering, thread-like branches. Use of rootlets; milky juice; fibrous structure; stem hardly noticeable; leaves arranged to get sunlight, to direct water toward the bud, to protect the buds at the base, and to facilitate breathing. Draw a leaf on the blackboard. Study the flower as "the crown of glory." Explain and point out that it consists of an involucre with bracts. Outer rows turn back, the inner over—thus protecting the flower at night. Lead the pupils to observe that the flower stem is short at first, and to watch it lengthen. Lead them to see how the yellow quilt covers the seeds and to observe the closing of the seed-cradle for several days before its contents ripen. Attempt no detailed study of this flower with small children.
6. Special study of the fruit. Lead the pupils to note the lengthening of the flower stem till the seed-cradle is pushed high up in the air; the fading and dropping of its yellow blanket; the trimming back of its green quilts, show-

ing the brown seed-babies with white arms and many fingers; the cup-cradle turning wrong side out, making the hairy sphere; and how the wind blows the hairy parachutes away.

(Giving the dandelion a personality enhances interest and sympathy.)

7. Adaptation of part to purpose emphasized. Bring out the unity of the plant's life with nature, generally with its dependence on sun, rain, and wind. Compare it with other plants as studied. Show its relation to man in dandelion tea and "greens"; as a nuisance in lawns; as a source of pleasure to children and older people. (Read Lowell's poem, *To the Dandelion*, etc.)

NOTES

1. If studied in upper grades, the individual florets should be examined; all the parts of the flower found; the adaptation of the parts to fertilization brought out; and how pollen is carried shown. That it is colored by nature to attract insects, and that its flower stem is long in order to allow wind distribution, may also be brought to the attention of older pupils, as well as its similarity to other plumed seeds—milk weed, for example.

2. When giving a lesson on this or any other plant, the purpose should be definitely fixed in the mind beforehand. With smaller pupils this purpose may be to create an interest in nature study or to obtain material for a lesson in language or in composition. In any case, moralizing or didactic instruction should be studiously avoided.

STUDY OF THE PINE

1. Preparation. Review the falling and coloring of its leaves. Where are the leaves now? Show exceptions to the general rule.
2. Lesson I. The tree as a whole.
 - a. Its appearance at a distance. Contrast in color with snow.
 - b. Why its trunk is long and straight.
 - c. Peculiarity of its branches, being horizontal, longer below, and flexible.
 - d. Make a drawing of the pine. Tell a story about it. (See STORY-TELLING.)
3. Lesson II. The parts of the tree.
 - a. Wood and bark; pitch, tar, and turpentine; the branches.
 - b. The leaves.
 - (1) Form. Draw them. Compare with other leaves.
 - (2) Location. In bunches, near the ends of branches and growing out from all sides of branches.
 - (3) Shape. Are long, slender, blue-green needles.
 - (4) Adaptation. Intended by nature to withstand wind, snow, and cold.
4. Lesson III. The Seed.
 - a. Care of babies generally.
 - b. The pine cradle and its seed baby. Position and use of the scales.
 - c. How the pine is propagated.
5. Lesson IV. Relation to man.
 - a. For ornament.
 - b. For protection.
 - c. As food.



- d. For lumber. Explain.
- e. For making oils, flavoring extracts, medicines, etc.
- f. For the production of articles for distillation.

STUDY OF THE APPLE



1. Material. Distribute apples to every two or four pupils. Select the fruit which is regular in form, with stem, and five-pointed calyx.
2. Lesson I. Observation of outside; molding.
 - a. Form and color of the fruit.
 - b. Molding in clay.
3. Lesson II. Observation of interior.
 - a. Make a cross section.
 - b. Draw what you find.
 - c. Study the core and its uses.
 - d. Uses of parts (seeds, skin, flesh).
 - (1) To ripen, protect, and scatter the seeds.
 - (2) To furnish people and lower animals with food. Let children eat them.
 - (3) To feed the apple grub.
 - (4) For fermentation; cider; vinegar; apple brandy.
4. Lesson III. How the apple is produced.
 - a. Growth of an apple.
 - b. Work of an apple tree.
 - c. How nature helps both.
 - d. Summarize in a blackboard story.
 - e. Use literature. Tell the history of the Trojan War. Read Whittier's *The Fruit Gift*, Bryant's *Planting of the Apple Tree*. (See STORY-TELLING.)
5. Lesson IV. Relation to man.
 - a. What man does for the apple tree. He plants, plows, grafts, trims, sprays, and gathers the fruit.
 - b. What the apple tree does for man. It affords beauty, shelter, shade, a home for birds, fruit, cider, vinegar, etc.
(See the article APPLE in the body of this work.)

THE BEET

1. Description of plant.
(The observation, showing both root and seed stem, will probably have to be at different times.)
 - a. Root: size, shape, color, covering.
 - b. Foliage: size, shape, color, system of veining.
 - c. Time required for production of plant; of seed.
 - d. Into how many lobes are its seeds deposited?
2. Kinds.
 - a. Original beet: where found; how different from most varieties.
 - b. Developed forms of useful variety; mangel, chard, garden beet, sugar beet, foliage beet.
3. Uses.
 - a. On the table: parts used; how prepared; value.
 - b. As stock food: varieties used; how prepared; where raised?
 - c. In the manufacture of sugar: history of the development of the sugar beet; value of its product.
4. The sugar beet industry.



- a. Soil required, and steps in planting, cultivating, harvesting, and marketing.
- b. Commercial importance of beet sugar. Other kinds of sugar.

(Make longitudinal and cross sections of the roots of the several beets. After observation by the pupils, draw on the board. Make other drawings showing, respectively, root, leaves, seed, stem; also plant as a whole.)

THE PUMPKIN



1. Distinction between the plant and the fruit.
2. Uses.
 - a. As food for people, mostly used in making pies, but may be merely mashed and seasoned. Describe preparation of the pumpkin for either use.
 - b. As stock food, where and how fed to stock?
 - c. It also furnishes material for Jack-o'-lanterns. How made? Illustrate.
3. Appearance of the fruit? Of the plant? Have a vine with a pumpkin on it for actual observation.
 - a. Fruit: size, color, shape; notice the ribs and count them.

Make on the board a cross-section; a longitudinal section.

- b. Stem: straight or curved; smooth or hairy; tough or easily broken?
- c. Planting: when, where, how?
4. Description of the plant.
 - a. Foliage: how many first leaves; their shape; draw them. Have pupils observe all the later leaves; size; smooth or rough; shape.
 - b. Is the vine clinging or trailing?
 - c. Blossom: size, color, odor.
 - d. When does it mature its fruit? (See Riley's poem.)
5. History. Cultivation of the pumpkin by Indians; why is the fruit connected with Thanksgiving? (First attempts at making pies due to scarcity of food.)
6. Literature, etc. Read the pupils the poem containing the words, *When the Frost is on the pumpkin, and the corn is in the shock*, from Riley, and also Burns' poem on *Hallowe'en*. Have them tell their mental pictures and then show a picture of a field of corn in shock with ripe pumpkins on the ground.

NUTS

1. How distinguished from other kinds of seeds?
2. Kinds.
 - a. Edible nuts.
 - b. Nuts for chewing, for medicine, for flavoring.
3. Distribution.
 - a. Extent.
 - b. Causes.
4. Uses: food, medicine, dye, ink, buttons, etc.
5. Commercial importance in United States.
 - a. Money value of home production.
 - b. Imports: almonds, cocoanuts, English walnuts, filberts, nutmegs, pecans, Brazil nuts.
 - c. Exports: hickory nuts, black walnuts, pecans, chestnuts.
6. How cultivated nuts are raised; wild nuts.
7. How harvested and marketed.



QUESTIONS

NOTE.—These questions are not answered in article on NUTS in the body of this work; but (except where otherwise indicated) the nature of the question will suggest the article to be read.

- (1) Name all the ways you know of using nuts as food.
- (2) What animals eat nuts? What nuts do they eat?
- (3) Note the prices of different kinds of nuts on the market. Why are some more expensive than others?
- (4) What articles have you seen made from the corozo nut? (See VEGETABLE IVORY.)
- (5) Tell about the cork nut. (See CORK.)
- (6) For what are nut galls used? Are these real nuts? (See GALLS.)
- (7) What is meant by grafting and budding? How do they help?
- (8) Make a list of the food and the timber values of the hickory family.
- (9) Give some uses to which the natives put the cocoanut.
- (10) Why is the term "chestnut" applied to a story oft repeated?
- (11) Tell of the big chestnut tree on Mt. Aetna. (See CHESTNUT.)
- (12) Tell of the cocoanut from the time the nut is planted until the fruit is placed on your local market. Is cocoa obtained from this nut?
- (13) Read poem on *The Chestnut Time*, by M. A. Harris.

DESTRUCTION OF THE CHESTNUT

A fungus growth not well understood is destroying thousands of the finest chestnut trees in America. This disease was first reported in 1904, but in 1906 Murrel made the statement that it then existed quite extensively in Long Island and New York City, and it spread very rapidly into Pennsylvania, Maryland, Virginia, West Virginia, Massachusetts, and New York. The fungus thrives best where moisture prevails and develops very rapidly, especially in spring. All the chestnuts become victims except the Japanese variety, which so far has been immune. Very little is known of the nature of the fungus and no prophecy can now be made as to its probable extent; but, judging from the rapidity with which it develops and the great number of trees destroyed in the last half dozen years, it seems our most highly prized trees are doomed.

The fungus attacks the crotches, ultimate twigs, or base of the trunk, and soon girdles the tree, killing it. When it first begins to be apparent that the young trees are affected, they can be saved by promptly cutting out the diseased portion of bark; but in mature trees the affected parts bear such close resemblance to the old bark that successful cutting cannot be made. A characteristic of the disease is that the tree usually sends out new sprouts just beneath the place girdled. Trees of less than two years' growth are generally immune. As the fungus usually enters through wounds or holes made by borers, the disease may sometimes be prevented by painting over the wounds.

While the plant pathologists have spared no energy and time, and though owners of estates whose chief natural attraction consists of massive and beautiful chestnut trees, have spent thousands of dollars, no adequate means of destroying or checking this particular fungus has yet been found.

METHODS IN STUDYING INSECTS, BIRDS, ETC.

CATERPILLARS AND BUTTERFLIES

1. Material, a milkweed caterpillar, a tomato worm, a cabbage worm, or the large green caterpillar of the tobacco plant. Have the children observe them several days and note that the caterpillar is not a worm. Have a definite purpose in the lesson. Boxes may be provided for rearing the caterpillars and showing their changes to butterflies and moths.

2. Relation to environment. Where found? On what feeding? (Make your language simple.)



3. Habits and structure.

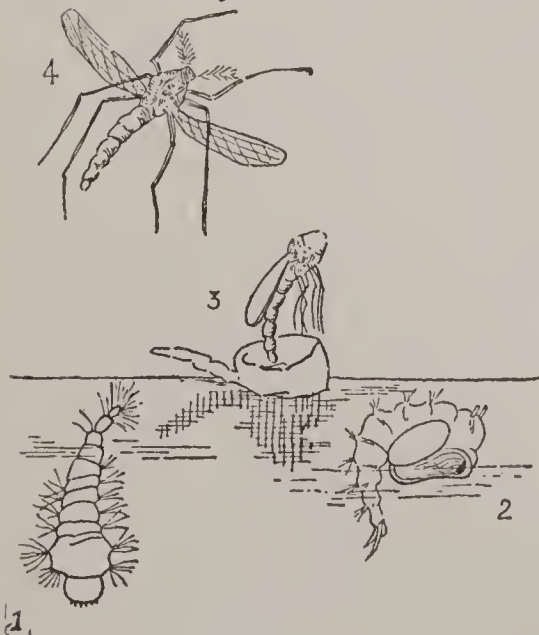
- Body: length, shape, rings, markings.
- Movements: how it crawls; number of pairs of legs: kinds (form, size, color); motion of hair near head when the caterpillar has hair.
- Feeding: have children watch them; call attention to the sidewise motion of their jaws and the length of their digestive canal.
- Spinning: have pupils see how this is done; use the magnifier; show a cocoon.

4. Life History.

- The egg and its development into a caterpillar. What are larvae?
 - Moulting may be explained, as it can rarely be seen.
 - Suspends himself and changes to a chrysalis. Hang it up where it can be watched. In ten to fifteen days it opens and a butterfly or moth comes out.
 - Why do wings develop?
5. The Butterfly.
- Study without handling. Distinguish from a moth.
 - Note the parts: head and body (thorax and abdomen); wings, legs, feelers, eyes, mouth parts.
 - Have the children view the scales on the wings with a magnifier. Draw attention to the brilliant coloring of some caterpillars.
 - Watch it eat; have pupils tell what it feeds on and the difference between its food and that of a caterpillar; why so long a tongue? (See articles in the body of this work on INSECTS; BUTTERFLY; MOTH.)

QUESTIONS

- Why are caterpillars usually great eaters?
- What does the silkworm feed on?
- Do caterpillars ever injure shrubs or trees?
- Why is the tobacco worm specially injurious to the leaves of that plant?
- How is the tomato worm injurious? The cabbage worm?
- Why do birds sometimes avoid eating caterpillars?
- How many kinds of butterflies? How are they distinguished?
- Do butterflies play any part in close fertilization? In cross-fertilization?



THE MOSQUITO

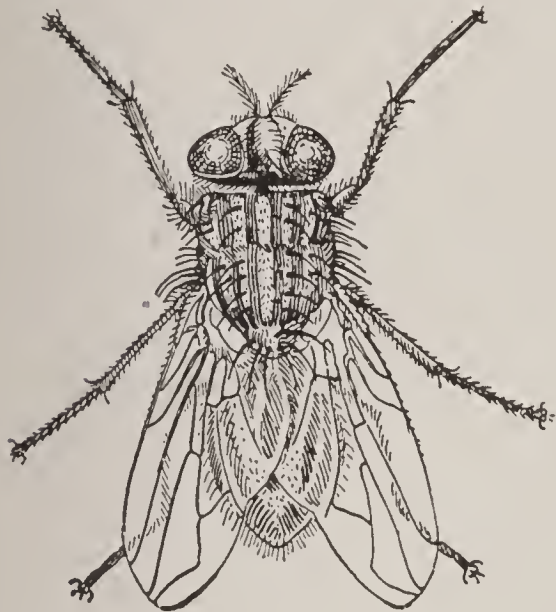
- Description. (From observation, using microscope.)
 - Body: long and slender.
 - Legs: small and long.
 - Wings: narrow and fringed.
 - Head: small. What difference between male and female head?
- Life Habits.

- Where usually found?
- Lays eggs; number, shape, and how arranged; time required for hatching.

- c. Larvae: why these are called "wigglers"; how they breathe; how long they live.
- d. Pupae: how differ from those of other insects?
- e. Time required to hatch and develop.
- 3. Relation to man.
 - a. Damage from mosquito bite.
 - b. Carriers of disease.
 - c. Methods of destroying them.

(For other suggestions on the study of this insect see article on the study of THE HOUSE FLY. Information may be obtained from the article on the MOSQUITO in the body of this work.)

THE HOUSE FLY



- 1. How distinguished from other winged insects? Why called *Diptera*? How many different kinds or families of flies in North America?
- 2. Metamorphoses:
 - a. Eggs: number, where laid?
 - b. Maggot or larvae. Shape; why no feet?
 - c. Pupa; quiet state; how long does it last?
 - d. How rapidly can the house-fly multiply?
- 3. Structure.
 - a. Head: eyes, mouth parts, antennae.
 - b. Thorax or body; shape; peculiarities of abdomen.
 - c. Legs and feet; special equipment for walking on floors and walls.
 - d. Wings: number, rapidity of vibration, and use.
 - e. Nervous system: where situated? Why can a fly walk without its head? Where are its special senses located?
- 4. Work as scavengers. Describe its sucking apparatus.
- 5. Carriers of disease: how; to what extent; danger.
- 6. How to get rid of flies.

QUESTIONS

- (1) Name all the different kinds of flies you have seen. How can you tell if an insect is a real fly? (See article on FLY.)
- (2) Read in magazines and other periodicals of steps taken in different localities to destroy flies. What diseases do they carry?
- (3) What are the characteristics of insects? Are spiders classed with them? Why?
- (4) Name some other objectionable or harmful insects. Find by reading or observation their life habits and determine means of destroying them.
- (5) Study types of flytraps and determine which are best and why. House flies have a tendency to fly upward to escape danger, seldom trying a low outlet. Notice that this characteristic is made use of in most traps.
- (6) Compare house fly, bluebottle, horse fly, etc., and have pupils write what they have observed or learned about the house fly.

THE ENGLISH SPARROW

- 1. Description (obtained from observation).
 - a. Head: shape, size, bill (draw outline).
 - b. Body: size, color, male and female.
 - c. Feet: toes, how many, arrangement; have pupils examine; draw.



2. Habits.

- a. Reproduction: nests, where and how built, how lined? Eggs: size, color, how many?
 - b. Disposition: behavior toward other birds; why so much disliked?
 - c. Feeding: where and how does it get its food?
3. How and when introduced into the United States?
 4. How distinguished from other sparrows?

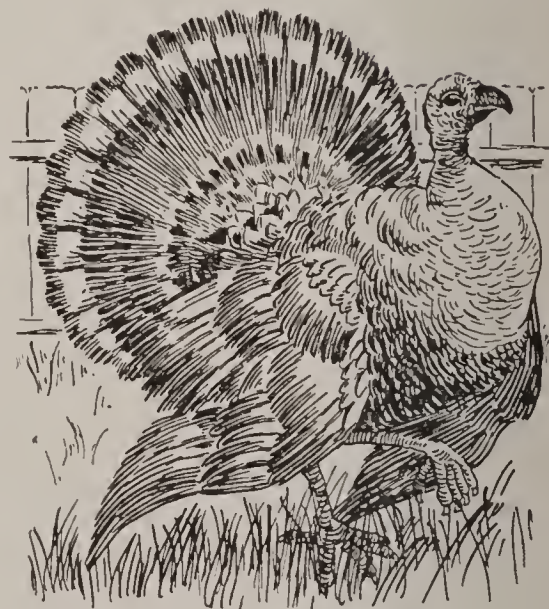
QUESTIONS

- (1) What particular advantage is gained by the coloring of the sparrow?
- (2) Why were English sparrows brought to this country?
- (3) What distinguishes "perchers" from other birds?
- (4) What poems have you read that mention sparrows?
- (5) Why have many states placed a bounty on sparrows? Does this include others beside the English sparrows? Why?
- (6) What good would result from driving them out?
- (7) Have you noticed the peculiar action of the leg muscles of these birds? What happens to the toes when the leg is bent (as in perching on a limb)? What practical benefit to the birds?
- (8) Name a dozen other birds belonging to this same class.
- (9) Is the foot (arrangement of toes) of the sparrow different from that of the chicken or of the parrot?
- (10) On what does the English sparrow feed?

THE TURKEY

1. Kinds.

- a. Wild: five varieties; where found; why disappearing?
 - b. Domestic: five varieties; give names.
2. Appearance of each kind in size, weight, color, and disposition. Distinction between gobbler and hen.
 3. Habits: nesting, feeding, roosting, parading, etc. (Have pupils note the changes of habit in the domestic fowl, what traits retained and why.)
 4. History of the wild turkey; of the domestic turkey; of the turkey's connection with Thanksgiving. (See articles on TURKEY and POULTRY in the body of this work.)



QUESTIONS

- (1) What has the turkey to do with the production of clover seed?
- (2) What varieties of domestic turkeys are raised in your neighborhood? Why these particular kinds?
- (3) Which bring better profit for time and money invested, chickens or turkeys? Why do so many farmers object to turkeys?
- (4) What time is required for the incubation of turkey eggs? (Read in some zoölogy text-book or elsewhere the details of incubation.)
- (5) Ascertain from some book on poultry the enemies of the turkey, and how to destroy or remove them. Why is the turkey disappearing?
- (6) Write out instructions for taking care of young turkeys obtained from someone who has made a success of it.
- (7) "When you hear the hyouk and gobble of a struttin' turkey cock."—Riley.

Read poems on *The Turkey* by Alice Cary and by Susan Coolidge.



Canada Goose (1/18)



Bonaparte's Gull (1/10)



Flamingo (1/27)



Great Blue Heron (1/22)



European Swan (1/36)



Brandt's Cormorant (1/18)



White Pelican (1/22)



Great Northern Loon (1/17)



Kittiwake (1/8)



American Coot (1/9)



American Bittern (1/14)



Eared Grebe (1/9)



Sandhill Crane (1/26)



Scarlet Ibis (1/14)



Black Tern (1/7)



Wilson's Snipe (1/6)



Egret or Snowy Heron (1/14)

- (8) Have your pupils use these in Nature Study, in language lessons, and in seeing how it helps to interpret and to enjoy literature.

THE DOMESTIC CAT

1. Description (from actual observation).
 - a. Head; size compared with body; whiskers, for what? Draw and describe the eyes, and show their different appearance in the light and in the dark. Why is this? Tongue rough or smooth? Motion of tip of tongue when drinking?
 - b. Body long and slender; how covered; colors. What is meant by "tabby"?
 - c. Feet, how different from dogs? How many claws on front feet? On the hind feet? Describe the muscles controlling the claws.
2. May be classed as long-haired and short-haired. Tell of some of each.
3. Relatives: lion, tiger, panther, wildcat, lynx.
4. Food: mice, squirrels, fish, birds, and other small animals.
5. Uses to man: in the house, in the field, in granaries.
6. History. Show origin and how connected with superstition.

NOTE.—This outline is not arranged in a strictly logical order, but that it may apply to the inductive teaching of small children. (See *INDUCTIVE METHOD*.) The first part of the outline is probably sufficient for young children; and with some slight extensions, the entire outline may be used in instructing grades.

THE SQUIRREL



1. Description (obtain from observation of both ground squirrels and tree squirrels).
 - a. Body: length, slenderness, shape, color.
 - b. Head: jaws, teeth, cheek-pouch, eyes, ears.
 - c. Legs: difference in length; the "flying squirrel."
 - d. Feet: claws; any difference between the feet of ground squirrels and tree squirrels?
 - e. Tail: different kinds; length; uses.
 - f. Covering: kinds; commercial value.
2. Where found: Europe, North America, South America, Central America, Asia. (None in Australia.)
3. Food.
 - a. Nuts and acorns: where found, how stored, how eaten.
 - b. Grains and other seeds: where gotten; how carried by ground squirrels?
 - c. Animal food; fruit.
4. Homes: hollow trees; nests; burrows.
5. Disposition: timid and easily frightened, but friendly.
6. Methods of travel of the tree squirrel.
 - a. Help of claws.
 - b. Use of tail.
7. Kinds: red squirrel, gray or black squirrel, fox squirrel, "flying squirrel," chipmunk, gopher, woodchuck.

QUESTIONS

- (1) The ground squirrel or gopher is a near relative of the tree squirrel, but different in habits and appearance. What are the differences?
- (2) When the pocket gopher is chased by a dog, how does he get away? What else do you think is interesting about the pocket gopher?
- (3) Does a "flying squirrel" really fly? Where is it found? (See *FLYING SQUIRREL*.)

- (4) Describe the home of the chipmunk. (See article on CHIPMUNK.)
- (5) How do "prairie dogs" guard against approaching enemies? How do they attempt to get rid of a rattlesnake that may get into the nest?
- (6) Do you favor having pet squirrels in the parks or in yards?
- (7) What use can be made of this information? (See article on SQUIRREL in the body of this work.)
- (8) What are the habits of woodchucks? (See WOODCHUCK.)

WATER—ITS FORMS AND WORK

1. Time: winter.
2. Aims: interest; unity in Nature; preparation for geography.
3. Useful properties.
 - a. Into what may it dissolve? Why does it float boats and ships and other things? How does it soak into things? Is this property useful or harmful?
 - b. Uses to man in cooking, washing, drinking, cultivation, carrying off sewerage, forming streams, etc.
 - c. Uses to lower animals: drink; home of many; nourishment in food, etc.
 - d. Uses to plants: drink, wash, food, etc.
 - e. Uses to the earth: refreshes; carries things; changes its shape.
4. Evaporation.
 - a. Why called natural distillation?
 - b. If apparatus can be secured have the children watch the operation.
 - c. Conditions affecting evaporation.
 - d. Boiling: describe the cause; show where the water goes; uses.
 - e. Slow evaporation. Illustrate. Uses.
5. Condensation. Illustrate. Collect the vapor. Application (artificial ice, for example).
6. Forms.
 - a. Vapor, steam, fog, mist, cloud (see special lesson), rain, dew.
 - b. Vapor, frost, ice, snow. What relation to "a"?
 - c. Produce frost; have pupils observe the frost's work and tell about it.
 - d. Ice formation; expansion; use (natural, artificial); glaciers.
 - e. Give this lesson when there is snow on the ground; purpose or use. Read Whittier's *Snowbound*.
7. Work of water in soil making.
 - a. Splitting of rocks; decay of leaves; carrying of sewerage and waste. Show relation of rain to the running water of streams.
 - b. Velocity; erosion; transportation; deposits. Explain.

SUGGESTIONS FOR STUDY

1. What are some of the uses of ice in stock yards? In cold storage establishments? In stores? In the home?
2. What would happen in very cold regions if ice sank as it formed?
3. What is silt? Of what use is it?
4. What is a moraine? How is it formed?
5. Why are the bodies of persons falling into a mountain crevasse sometimes obtained from glaciers?
6. Where does rain come from? How? Is it in the form we receive it?
7. What is the difference between dew and frost? Between hoar frost and black frost?
8. How can water be rendered harmless for drinking?
9. What takes place when steam comes from the kettle on the stove?

GEOGRAPHY

ITS SCOPE—METHODS OF STUDY—WHERE TO GET INFORMATION —INDUSTRIES OUTLINED AND ILLUSTRATED

Strictly speaking, Geography deals with the earth only as the home of man. But, as many influences have taken part (and are still at work) in fitting the earth for man's residence, a full understanding of the subject cannot be had without a study of these various forces. Climate, for example, is much affected by the earth's motions and by forces set to work by those motions. The face of the earth is constantly changing under nature's operations and under man's manipulation. New areas are being brought under cultivation; new fruits, cereals, and market garden crops are coming into existence; new forces are being harnessed by man—and so, in our presentation of this subject, we have tried to keep in mind not alone the technical phase of geography, but that broad conception which an educated person should have of the earth on which he lives.

COMMERCIAL GEOGRAPHY.

Though not the most interesting, this is the most practical phase of geographical study. It leads to a knowledge of the world's productions, of the industries that engage man's thought and effort, of the exchange of commodities, etc. The Phoenicians were the first traders of history, but their field of effort was quite small. Now all parts of the earth are reached by ships, railways, and other means of transportation, and every country and every climate are made to serve man's needs. Outlines for the study of industry and commerce are given elsewhere. Make a careful study of the Product Maps illustrating these outlines:

Forestry.	Grain Harvesting (charts).
Paper making (charts).	Irrigation and Drainage.
Fishing.	Transportation (article and charts).
Mining (article and charts).	Standard Time (charts).
Coal and Iron.	

PHYSICAL GEOGRAPHY.

The face of the earth is constantly modified by natural forces. The atmosphere above it, the winds that play over land and water, the moving waters, the forces hidden in the bowels of the earth, powers brought into play by man's delving or boring into the earth, and chemical action—all have a part in these changes. The outlines and charts given at the end of this article open the way for a thorough study of these forces.

The Seasons (chart).	The Ocean.	Springs and Artesian Wells.
Meteorology.	Winds (charts).	Lakes.
Earthquakes and Volcanoes.	Nile River.	Erosion.

It should not be forgotten that many of these articles give valuable information and aid in the study of all phases of the subject of geography.

COMMERCIAL GEOGRAPHY

POSITION AND DIRECTION

1. Locate the school building in the school yard ("in the center," "on the side," etc.).
2. Locate the teacher's desk; the stove.
3. Lead the pupil thus to see the necessity for some means of describing the location and direction of things, whether for his own use or in telling others.
4. Now (always giving this lesson in the morning to young pupils) have the pupils face toward where the sun rises. Give the name "East." Let them tell that the sun sets behind them and that this is "West." Have them extend their arms, index fingers pointing. Show that the right finger points "South"; the left, "North."
5. Now go back to the other lessons and locate the objects named and a few other prominent objects as "East side," "North end," etc.
6. Make a drawing (do not call it a *map* at first) on the board, of the school yard, locating the various buildings, the well, the gate. Drill the pupils on this by "North," "East," "South," "West."
7. When they are familiar with this drawing, tell them you wish them to make one like it, locating the objects by rectangles, circles, dots, etc.
8. Below the drawing have them locate and give directions from the schoolhouse.
9. When they have the idea, tell them that such a drawing is called a *map*. Have ready a map of the school room. Copy it on the board, drawn to a scale.
10. Now have the pupils: (a) Locate a few prominent objects; (b) Place them on the map on the board *under the pupil's dictation*. (c) When the locations are agreed upon, then, below, state directions—again *under the pupil's dictation*; when finished and all are satisfied the map is right, have the pupils copy it. If necessary, teach "Northeast," "Southeast," etc. Then place objects in different parts of the room. Drill on locations and directions.

Have each pupil make a *map* of his home, locating house, garden, barn, etc. Go slowly.

SCHOOL DISTRICT

Make a map showing roads, farm houses, bridges, groves, and a few interesting places of that sort. This will probably take several days and must be worked up very carefully. The map must be drawn to scale, and public highways may either be colored or drawn with two lines to distinguish them from section lines and farm boundaries. Number the sections. After the pupils have copied the map on paper, select several of the better ones and have the different farms colored, not using the same color on any two adjacent farms. This paves the way for the vari-colored maps soon to be studied. (Never forget to commend both good work, and faithful work even if not so good.)

Make a list of products, being careful to distinguish between those raised for home use and those actually shipped out. That study may be a general class exercise for the district, or individual pupils may be required to make a similar study of the particular farm on which he lives.

So far, the district has been treated with regard to itself only. The following outline has been arranged with reference to surrounding districts, making a little more intensive study. Teacher should sketch on the blackboard a map of the township, showing the home district somewhat in detail—perhaps roads and schoolhouse will be enough. Show how school districts are numbered and learn the number of your own. Write names of contiguous districts on the map. By incident, illustration, or question always keep the pupils impressed with the idea that these lessons have a purpose. They may think the lessons are just to make work for them.

1. Location of School District.
 - a. Position in township.
 - b. Bounding districts.
2. Area.
 - a. Size of township.
 - b. Number of districts (refer to map).
 - c. Size of each district.
3. Population.
 - a. Take census by calling on the pupils for the facts.
 - b. Density (number to square mile).
 - c. School attendance (percentage).
4. Surface. (Always lead pupils to discover and state facts if they can.)
5. Climate. Explain. Lead pupils to understand.
6. Natural Resources. Soil, mineral wealth, forests, waterpower, etc.
7. Industries. Mining, Agriculture, manufacturing, lumbering, quarrying, commerce, dairying, fishing, fruit raising, etc. Bring out which give employment in the region covered by the map.
8. Products.
 - a. Agricultural (including orchards or vineyards).
 - b. Mineral (kind, purpose, value).
 - c. Animal (including milk, cheese, birds, etc.).
 - d. Timber (lumber, furniture, wind-breaks, drainage).
 - e. Which are marketable? Why.
9. Commerce.
 - a. Imports (or things brought in).
 - b. Exports (or things sold out).
 - c. What exports are domestic? Which are foreign? (Explain.)
10. Government. School officers. How many, when elected, by whom, term of service, pay.
11. Taxes.
 - a. Assessed valuation. (Explain.)
 - b. Amount of levy. (Explain.)
 - c. Other sources of school money.
 - d. What the school costs.
 - e. Is this the only cost to the parent?
12. History. Has any important event occurred in the township?

Read articles in this work on CIVICS, DRAWING, CENSUS, CLIMATE, SOIL, COMMERCE, U. S. HISTORY, DRY FARMING, CHEESE, BUTTER, etc.

TOWNSHIP

Show map of the county indicating township.

1. Location.
 - a. Position in county with regard to survey.
 - b. Bounding counties. (Show by a map of the state.)
2. Area. Are all townships the same size?
3. Population. Total; density. (See CENSUS.)
4. Surface. Hills, streams, ponds, timber land, etc.
5. Climate. Distinguish between *weather* and *climate*.
6. Natural Resources. Explain. Have pupils enumerate. Hindrances.
7. Industries. See above. Any manufacturing, kilns, quarries?
8. Products. Give a talk on domestic and foreign imports and exports.
9. Commerce and transportation. Explain. Lead pupils to express themselves.
10. Government.
 - a. Offices. Why created?
 - b. Villages. How governed?
 - c. School districts. Plan. Why made?
11. History. Influence of local on state history—political, economic, etc.

See General Index, under heads AGRICULTURE, BIRDS, CARBON, CLOTHING, DRUGS, FUR, INSECTS, NAVIGATION, RAILWAY, etc.

CITY

1. Location. What usually determines the location of a city?
2. Area. How is this fixed? How changed?
3. Population. Home or foreign? Why?
4. Natural advantages. Waterpower, navigation, character of surrounding country, railway center, commercial center.

5. Industries. Character. Enumerate.
 - a. Imports and exports (amount, articles, value).
 - b. Where do these come from?
7. Transportation. Railroads, etc.
8. Government.
 - a. Charter. How obtained? Contents?
 - b. Departments.
 - (1) Executive. Mayor. Who, when elected, term of office, pay, duties, assistants.
 - (2) Legislative. Board of aldermen, number, how and when elected, duties.
 - (3) Judicial. Local, general, purpose.
 - c. Public service systems. Water, Heat, Light, Fire, Health, Police, Bureau of Public Works, Civil Service Commissioners, Board of Local Improvements, Election Commissioners, Board of Education.

Read articles in this work on CIVICS, POPULATION, BUSINESS ECONOMICS. MANUFACTURES (under the different countries described), Cities (See General Index), TARIFF, TRADE UNION, CANAL, TRANSPORTATION, HEATING AND VENTILATING, SANITARY SCIENCE, SEWAGE, AUTOMOBILES, TEXTILES (see Index), CHICAGO, HIGH SCHOOL.

STATE

Show map of your own state to illustrate outline.

1. Origin of name; of civil formation.
2. Location.
 - a. Latitude and longitude.
 - b. Position in United States.
 - c. Bounding states.
 - d. Natural boundaries.
3. Size.
 - a. Greatest or average width.
 - b. Greatest length.
 - c. Area and rank in size.
 - d. General shape. Due to what?
4. Physical Features.
 - a. Surface. Elevations, lowlands, valleys, plains, watersheds.
 - b. Drainage. Rivers, lakes, basins.
 - c. Coast. Direction, extent, projections, indentations, harbors.
 - d. Causes of these features.
5. Climate.
 - a. Temperature. Cause, highest, lowest, average.
 - b. Winds. Direction of prevailing winds, why, when.
 - c. Rainfall. Amount, time, causes.
6. Agriculture. Consider under this head grains, fruits, root crops, etc.
7. Mining. Kinds of mines, number employed, value, etc.
8. Lumbering. Kinds of timber found, the forestry question.
9. Manufacturing.
 - a. Extent. Local raw materials used.
 - b. Factory centers, where located and why.
10. Fishing. How done. Effect on supply.
11. Commerce and transportation.
 - a. Advantage to the state.
 - b. Chief transportation routes: natural (navigable rivers, lakes); artificial (railways—steam, electric; roads).
 - c. Exports and imports. Due to what? Source? Amount?
12. Chief cities. Causes of their location and growth.
13. Education.
 - a. Common schools. Number, purpose.
 - b. Colleges and universities (state, private).
 - c. Technical schools.
14. State Institutions. For the insane, deaf and dumb, blind, poor.
15. History.
 - a. First settlement.
 - b. Early development.
 - c. When admitted to the Union.
 - d. Historical events and places, statesmen, musicians, orators, physicians, warriors, inventors, educators, authors, writers, jurists.

STATE STUDY

As one illustration of how a state may be studied, see the outline below for the study of State of Michigan. Supplement or change this model according to the outlines above. Avoid routine or non-thinking work.

MODEL FOR STATE STUDY—MICHIGAN

HISTORY.

1. Places of first settlement: why did the first inhabitants locate there? How did the state get its name?
2. Periods of French and English settlement, and final transfer to the United States.
3. Pontiac's Conspiracy.
4. As a part of the Northwest Territory.
5. Establishment as a territory and as a state.
6. The Toledo War.

POSITION AND EXTENT.

1. Among the Great Lakes; peninsular character.
2. Area and dimensions; shape and its cause.

FLORA AND FAUNA.

Explain. Show which are useful to man.

PHYSICAL FEATURES.

1. Character of surface.
 - a. Relief.
 - b. Agencies shaping surface (natural and artificial).
 - c. Kind of material.
2. Soil: kinds, origin, distribution.
3. Water resources.
 - a. Principal streams with their size and navigability.
 - b. Lakes: interior, Great Lakes.
 - c. Ground water, springs, wells.
 - d. Mineral waters, their location and uses.
4. Climate.
 - a. Distribution of rainfall over the state by seasons.
 - b. Distribution of temperature over the state by seasons.
 - c. Factors influencing climate.
 - (1) Latitude.
 - (2) Continental interior.
 - (3) Westerly winds and cyclonic storms.
 - (4) Great Lakes.
 - (5) Forest destruction.

INDUSTRIES.

1. Agriculture.
 - a. Grains: kinds, distribution, importance.
 - b. Fruit.
 - (1) Kinds, distribution, importance.
 - (2) Factors determining distribution.
 - c. Beet sugar; distribution, production compared with other states.
 - d. Market gardening; distribution.
 - e. Live stock; principal kinds, etc.
2. Lumbering.
 - a. Principal kinds of trees and their distribution.
 - b. Rise and decline of the industry; why?
 - c. Production compared with other states.
 - d. Relative importance at present.
 - e. Relation to forest reservation movement.
3. Mining.
 - a. Iron.
 - (1) Principal ranges.
 - (2) Kind and quality of ore.
 - (3) Quantity available and length of time it will probably last.
 - (4) Production compared with other states.
 - b. Copper.
 - (1) Location of district.
 - (2) Quality and production compared with other states.
 - c. Coal.
 - (1) Location of district.
 - (2) Kind, quality, amount available, production.
 - d. Salt; location of wells, quality, production.
 - e. Value compared with other industries.
4. Manufactures.
 - a. Leading industries and what factors have contributed toward their development.

- b. Importance compared with those of other states.

5. Fisheries.

- a. Principal fish, how and when caught.
- b. Location of fishing grounds; their relative value.

TRANSPORTATION AND COMMERCE.

1. Railroads.
 - a. Factors influencing distribution of railroad web.
 - b. Mileage compared with other states.
2. Rivers and canals; importance.
3. Great Lakes; principal routes and ports; importance to the state and to the nation.
4. Principal exports and imports.

DISTRIBUTION OF POPULATION.

1. In the Upper Peninsula; factors determining distribution.
2. In the Lower Peninsula; factors determining distribution.

3. Rural and urban; cause of movement to the cities.

4. Leading cities; their location, chief industries, factors of growth.

GOVERNMENT.

1. Executive: governor, state officers, assistants.
2. Legislative: senate and house of representatives.
3. Judicial: supreme and other courts.
4. Local: county, city, town and township officials, etc.

HEALTH RESORTS.

1. Character.
2. Where located.

EDUCATION.

1. Higher Education.
University, normal schools, agricultural and mechanical college, school of mines, high schools, denominational institutions.
2. Common schools.
3. Charitable and reform schools.

See, for special and fuller information, articles in this work on UNITED STATES HISTORY, LATITUDE, LONGITUDE, STATE MAPS, STATE STATISTICS, LAKES (General Index), MINING, LUMBERING, FISHERY, BUSINESS ECONOMICS, COMMERCE, EDUCATION, AMERICAN LITERATURE, UNIVERSITY, NORMAL SCHOOLS, the facts about the several states given with each state, the facts about leading cities, etc.

OTHER SUGGESTIONS FOR INDIVIDUAL WORK

1. Make a product map of each state on the plan of Missouri and Minnesota. Have pupils make similar maps and then get pictures from magazines or catalogs and paste them on the maps, or draw with pencil if pictures cannot be obtained. This exercise will fix the products indelibly and will do away with the evil results of trying to memorize what somebody else has worked out.

2. Trace in detail some of the more important industries, going beyond the confines of the particular state studies. For example, Maine supplies a large amount of bark used in tanning leather. Make a study of Leather and all related subjects. Outlines will be found in "*Education*." Where the subject is not outlined make your own study plan. Where the industries are agricultural take something like this: (a) Trace Wheat from the time it is planted till it comes to your table in wheat cakes. (b) Study Corn from its planting to the factory products.

3. Study Lumber with all its connected subjects. That will give the pupil a working knowledge of forest conditions the world over, and provide a good connecting link for the study of foreign countries.

4. Study Irrigation, not only in the western states today, but ancient and modern irrigation in Egypt and India. Study also Reclamation.

5. With the Study of Cotton, include a study of the manufacture of thread in England, also in the United States.

6. Let Salmon Fisheries (Puget Sound) open the way to the great fishing industries of the world.

7. The study of Gold (in the Black Hills) will introduce the gold fields of the world along the various methods used in mining and with explanations of the method adapted to the necessities of each particular place.

8. Cattle Raising in the Southwest may be expanded into a comparative study of different breeds of cattle, their uses, where found, etc.

The progressive teacher will select from time to time the subjects best suited to each pupil, and will teach pupils to outline their own subjects rather than to depend on others, for the same reason that the mental discipline of working problems is lost if the teacher does the work for them.

9. Have pupils make collections of pictures illustrating industries and places of interest. They can be cut from magazines or from whatever source is at hand, and preserved for the school in an album or in any other convenient manner.

See suggestive maps of Missouri and Minnesota opposite, also product maps of other states under Illinois, Georgia, Texas, Ohio, New York, Washington and Oregon, etc.; also see charts of certain administrations (U. S. HISTORY). Read articles on LEATHER, AGRICULTURE (General Index), LUMBER, HOME ECONOMICS, IRRIGATION, DRAINAGE, CORN, COTTON, ELI WHITNEY, EGYPT, INDIA, THREAD, SALMON FISHERY, FISHES (General Index), GOLD, GOLD LEAF, MONEY, CATTLE, ANIMALS (General Index), BEEF, BUSINESS ECONOMICS, WEAVING, SPINNING, SILK, ARCTIC REGIONS, BRIDGES (General Index), NATURAL BRIDGES, PARKS, CLIFF DWELLERS, CLOTHING, etc.

COUNTRY OR NATION

1. Name, origin of.
2. Location.
 - a. Latitude and longitude.
 - b. Position in continent.
 - c. Countries bordering.
3. Extent and area.
 - a. Greatest length and width.
 - b. Number square miles.
 - c. Tillable land; land not worth tilling.
4. Physical Features.
 - a. Surface (see relief map of). Elevations, depressions, table lands, valleys, slopes.
 - b. Drainage. River systems and basins, lakes and watersheds.
 - c. Coastal features. Outline, regular or irregular. Extent in miles. Harbors, deltas, estuaries.
 - d. Natural curiosities. Caves, falls, glaciers, geysers, etc.
5. Climate.
 - a. Temperature (zone), winter, summer.
 - b. Winds, direction, cause.
 - c. Rainfall in each section.
 - d. Elevations and their cause and effect.
6. Life.
 - a. Vegetation in forests, plains, desert, swamps.
 - b. What relation to man?
7. Animals.
 - a. Land, water, air.
 - b. Wild, domestic.
 - c. How geographically important?
8. Man.
 - a. Aborigines.
 - b. Later immigrants.
 - c. What relation to physical features, climate, plant and animal life? (See above.)
9. Minerals.
 - a. Metals, ores, precious stones, building stones.
 - b. How do these affect commerce?
10. Industries.
 - a. Agricultural. Grains and other field products, hay, orchards, etc. Live stock and animal industry, dairying.
 - b. Fishing.
 - c. Mining.
 - d. Manufacturing.
 - e. How do these affect commerce?
 - f. How do they affect the country's development?
11. Products.
 - a. Plant. Enumerate both seed and plants.
 - b. Animal. Why valuable to man?
 - c. Mineral. Kinds and uses.
 - d. Manufactured. Out of what made?
12. Transportation.
 - a. Natural. Rivers, lakes, seas, mountain passes, roadways.
 - b. Artificial. Canals, railways, roads.

13. Commerce.
 - a. Domestic. Local, intrastate, interstate.
 - b. Foreign. Imports, exports.
 - c. Use of a tariff.
14. Population.
 - a. Number, increasing or decreasing; why.
 - b. Density, where greatest; why.
 - c. Trend; why.
 - d. Migration, causes, where.
15. Cities. Study reason for location of each.
16. Government.
 - a. Form; present ruler.
 - b. Departments. Executive; Legislative; Judicial.
 - c. Foreign relations. Trade, etc.
17. Education.
 - a. Free or public schools.
 - b. Church or parochial schools.
 - c. Colleges and universities.
 - d. Reform Schools.
 - e. Normal Schools.
 - f. Private institutions.
18. Culture.
 - a. Literature, history, form, noted writers.
 - b. Art. Painting, development, purpose, character, influence; sculpture, material, kinds, characteristics; music, instrumental, vocal, leading composers.
19. History. Origin, development, causes of changes.
20. Noted persons or places.

Read the articles on each country: COAL, HAY, CAVE, GLACIER, GEYSER, NATURAL BRIDGES, FEATHERS, FISH, FUR, SEAL, DUCK, DUCKBILL, OPOSSUM, UNITED STATES HISTORY, BUSINESS ECONOMICS, GRAPE, VULTURE, BIRD, ORCHARD, ORCHIDS, METEORITES, MINERALOGY, MINING, STATISTICS, STARCH, SUGAR, SUGAR CANE, BEET, MAPLE, PLANTS (General Index), WIND, TOPOGRAPHY (under several countries), TARIFF, CIVICS, GEOGRAPHY, LITERATURE (of each country), EDUCATION, PAINTING, SCULPTURE, MUSIC (General Index), etc.

CONTINENT

1. Location, area, general shape.
2. Contour, projections and indentations, islands.
3. Surface.
 - a. Main axis, secondary axis.
 - b. Slopes, plains, plateaus, basins.
 - c. Molding influences (rain, volcano, wind).
4. Drainage. River systems, lakes, swamps, watersheds.
5. Natural Curiosities. Caves, falls, glaciers, etc.
6. Climate.
 - a. Hot, temperate, and cold belts. Causes.
 - b. Prevailing winds. Due to what? When?
 - c. Rainfall, dependent on surface and winds.
7. Life.
 - a. Vegetation, forests, plains, deserts, swamps.
 - b. Animals, land, water, air.
 - c. Inhabitants. Aborigines; later immigrants; change in character.
8. Minerals.
 - a. Metals, use, extent.
 - b. Precious stones, kind, where found.
 - c. Ores, form, how obtained.
 - d. Building stones, how distinguished.
 - e. Oils, kinds, how refined, by-products.
 - f. Fuels, coal, wood, oil, etc.
9. Industries.
 - a. Crude products.
 - b. Manufactures.
10. Commerce.
 - a. Chief routes.
 - b. Natural highways. Waterways, plains, roads, mountain passes.
 - c. Artificial highways. Canals, railroads, aviation routes.
 - d. Effect on location of cities.
11. Largest cities.
12. Political divisions.
13. Physical divisions.

The teacher or reader should group these references under each head on a separate sheet. Often an article is valuable under several heads. Read it under each

head. You cannot have too much general information. Look at a subject from several standpoints and you will have a much broader conception of it. Many articles will be found helpful besides those enumerated. Always consult the General Index.

Articles helpful here are those on each country in the body of the work: ATLANTIC, PACIFIC, and other oceans; ISLAND, ISLANDS (General Index); VOLCANO, PHILIPPINE ISLANDS, WEST INDIES, MOUNTAINS (General Index); MAMMOTH CAVE, WEATHER BUREAU, PAMPAS, MONSOON, MONKEY, ANIMALS (General Index); PETROLEUM, TURPENTINE, TAR, MINERALS (General Index); ROAD, AIRSHIP, WRIGHT BROTHERS, CANAL, PANAMA CANAL, RAILWAY, CITIES (General Index).

STUDY OF THE PRODUCT MAPS

INTERESTING FACTS ABOUT MINNESOTA

1. Minnesota ranks first in the production of wheat, second in barley, fourth in oats, ninth in potatoes, fourth in total amount of cereals, fifth in value of dairy products.

2. It produces more iron than any other state.

3. The first settlement made by Americans was in 1812. Minnesota means in Indian language "Cloudy Water."

4. The region south of Lake Superior is the scene of Longfellow's Poem, *Hiawatha*; the famous "pipestone quarry" is in Pipestone County, in the southwestern part. From this quarry the Great Manitou is said to have commanded that clay be taken to make the universal peace-pipe.

5. Minneapolis is the largest primary wheat market in the world; also the largest all-rail grain market in the world. Practically every sort of manufacture is represented here. Minnehaha (Laughing Water) Falls is within the city limits.

6. One of the finest views in the world is that from Rogers Boulevard in Duluth. The drive is 500 feet above Lake Superior, which gives it a total elevation of 1,100 feet.

7. Duluth has greater vessel tonnage enrolled than any other port on the Great Lakes.

8. Between Duluth and Superior, Wis., conflicting currents have thrown up a sand bar on which has been built a part of the city of Duluth, connected with the city proper by a trolley line. The United States government has built a fine harbor at Duluth, cutting through the bar for entrance and making a walled channel 400 feet wide. Across the channel is built a steel framework which supports a swinging platform carrying the trolley cars across the channel. The trestlework is high enough to permit the largest lake vessels to enter the harbor. (See picture of Duluth in the body of this work.)

9. The St. Paul water supply comes from a series of clear lakes fed by ice-cold natural springs, and from artesian wells. At the Paris Exposition in 1900 St. Paul was awarded a medal for being the "healthiest city in the world."

10. St. Paul is one of the few points for tea inspection in the United States and has a wonderfully large wholesale traffic in tea shipped direct from Japan. New York is the only city surpassing it in the fur trade.

11. The original Indian name of St. Paul was Innijiska, meaning "White Rock."

12. The true source of the Mississippi was long thought to be Lake Itasca. When Schoolcraft headed an expedition up the river and reached that lake he wished to give it a distinctive name, and demanded of his followers a Latin translation of "true head." One whose Latin was limited gave "veritas caput." That being too long, the first and last syllables were dropped, leaving "Itasca." Since then Elk Lake has been found to be the true source.

QUESTIONS ON MINNESOTA

1. Which is farther west, Minneapolis or Little Rock, Ark.?
2. Which is farther north, Minneapolis or Paris, France?
3. Which is farther from the equator, Duluth or Cape Town, Africa?
4. What was the first building erected in Minneapolis?
5. On what grounds can we say that Minnesota is the oldest land in the world?
6. Why is corn not raised in the extreme northerly part of the state?
7. What large animals, formerly plentiful there, are scarcely to be found now?
8. Who were the first white men to see Minnesota?
9. What hindered the settlement of the state in the early 60's?
10. Which has more teachers in the public schools, Minnesota or Illinois?
11. Which set aside more land for public school funds, Minnesota or Illinois?
12. What does "Minnesota" mean? How many names can you find in the United States having "minne" as a part?
13. How does the average cost of schooling for each pupil in Minnesota compare with that of Illinois? California? Texas?
14. How many representatives does Minnesota send to Congress? Nevada? What makes the difference? Compare the areas of the two.
15. In what part of Minnesota is iron found? In what form?
16. Which are the principal lake ports for the shipment of iron? How much ore is shipped out each year? What is its value?
17. Why are Minnesota's lumber interests in danger? What about Forest Reservation in the state? (See article on FORESTS AND FORESTRY.)

INTERESTING FACTS ABOUT MISSOURI

1. Missouri is first in the production of mules and swine.
2. No state has a greater range of mineral products.
3. The first settlement in the state was made at Ste. Genevieve.
4. St. Louis was founded in 1764 by the order of Liguist, who had selected the site the year previous. He named the city in honor of Louis IX of France. This city now produces three-fourths of the manufactured goods of the state. The overland traffic on the Sante Fé trail was the real cause of the growth of St. Louis.
5. Everything required by the trapping, mining, or ranching population of the West was shipped from St. Louis up the Missouri to Independence, and there loaded on wagons or pack mules and transported overland to Santa Fé.
6. From the mouth of the Mississippi River to the head of Jefferson River, one of the sources of the Missouri, is a total length of 4,200 miles, the longest continuous waterway in the world.
7. In flood times the Missouri is one of the most treacherous rivers known. Even those versed in river lore are never able to tell where or when deposits of sand and silt will occur, or be washed away, or when a bank will be cut through and a new channel formed. Several times, notably during the flood of 1903, the river has threatened to cut a new channel at Kansas City. At that time the place in danger of being cut through was about two miles north of the city. Should that ever occur the city will be without a large river.
8. Kansas City, Mo., is connected with Kansas City, Kans., by an inter-city viaduct, a steel and concrete structure spanning the West Bottoms and the Kaw River, that gives a direct line a mile and a quarter long for street cars, wagon traffic, and foot passage where formerly only one round trip could be made by loaded wagons in a day.
9. Owing to the treacherous character of the river at St. Louis, engineers had for many years declared it to be impossible to build a bridge there. It was accomplished, however, in 1867, by Captain Eads, who put down stone supporting

pillars to bed rock, far below the bottom of the river. Read about Captain Eads and his other work along the Mississippi River in the body of this work.

10. Sometimes ice floating down the Mississippi accumulates above the piers of the bridges at St. Louis and, freezing solidly, forms an ice bridge over which loaded wagons can cross. It may remain for weeks.

11. Missouri is one of the leading wine-producing states. It is also famous for its orchard products and as a producer of grain, vegetables, tobacco, cattle, and hogs. Its principal mineral products are coal, lead, and zinc.

QUESTIONS ON MISSOURI

1. What rank among the states, according to size, does Missouri hold? According to population?

2. Which is farther north, Kansas City, Mo., or Washington, D. C.?

3. About how far was Jefferson City from the center of population in the United States in 1910? (See articles on CENTER OF POPULATION and on LONGITUDE AND TIME in the arithmetic study.)

4. What was the Santa Fé trail?

5. What kind of apple is raised most generally in Missouri? Of grape?

6. What can you say of the berry crop? Of the mines of the state?

7. What was Henry Shaw's idea in beginning what is now known as Missouri Botanical Garden? (See SHAW'S GARDEN.) Is it of any practical benefit to the state?

8. What is the state flower of Missouri? Describe it.

NOTES.—The Missouri River will prove a very interesting and profitable study, if the outline for study of a river system is followed. (See study of Nile River.)

Read any books or articles you can find on the subject of the Santa Fé and other western trails, and kindred subjects. It will make the study of the Western states much more interesting, and give a good idea of the cause of the early settlements. Make a list of all the articles you can containing stories of Western adventure. What difference would you find in supplies carried now by an expedition into unknown or sparsely settled territory from those carried by a railroad to Hannibal, Mo.?

ITEMS OF INTEREST ABOUT THE STATE OF WASHINGTON

1. The altitude of Washington varies from sea level to 10,000 feet. That, in connection with the winds from the Pacific Ocean, gives the state a wide variety of rainfall and climate, causing a much diversified vegetation which, in turn, develops many different industries.

2. The Snake River is navigable for more than 150 miles.

3. On Lake Chelan in the Cascade Mountains one can sail for thirty miles between mountains from seven to ten thousand feet high, affording some of the most beautiful views to be had anywhere.

4. Puget Sound, from sixty to one thousand feet deep, and protected from wind on all sides, is one of the greatest natural harbors in the world. Vessels can land almost anywhere along the whole coast line.

5. Washington is rightly called "The Evergreen State," since there are over 40,000 square miles of forests, mostly coniferous.

6. In eastern Washington the soil is formed largely from disintegrated lava, and contains no gravel and little sand. That is ideal soil for wheat and enormous crops are raised every year without fertilization. It is also a section noted for apple and pear orchards.

7. In western Washington there are about 500 creameries and condensed milk factories. What animal industry thrives there?

QUESTIONS ON WASHINGTON

1. How may Washington be divided as to surface? Cause?
2. Compare rainfall in those divisions. Why that difference?
3. What is peculiar about the harvest season of eastern Washington? Does it differ in that respect from your own state?
4. Why is corn not raised in western Washington?
5. For what is the Washington fir particularly in demand?
6. Considering the minerals found in the state, what do you think of the prospect for extensive manufacturing? What manufactured articles would you expect?
7. What was Washington's interest in the "Fifty-four forty or fight" campaign? (Read in your school history of the Oregon Treaty in 1846.)
8. What is shipped from Tacoma to England via Singapore and the Suez Canal? Trace the journey on the map and estimate the number of miles by reference to scale.
9. What natural advantages for commerce has Seattle?
10. In what way has the United States government added to the growth of Seattle?
11. From what source does Spokane derive her electricity for light and power?
12. What noted fish industry in Washington? Tell something about the industry and about the habits of the fish in question.
13. What is the basis of the commerce between western Washington and Alaska?
14. Why are oats and wheat important crops in this state?

ITEMS OF INTEREST ABOUT OREGON?

1. Mount Hood is 11,500 feet high. Compare with Mount Shasta. Where is each located?
2. Many of the mountains of the state are of volcanic origin.
3. Crater Lake in the Cascades occupies the crater of an old volcano. The lake level is 8,000 feet above the sea. It is 10 miles in circumference, and its walls are bluffs rising 2,000 feet. What differences between Crater Lake and Klamath Lake?
4. Gold is the only mineral product mined very extensively.
5. Astoria is the center of the salmon canning industry, which is carried on almost exclusively by the Chinese.
6. The crest of the Cascade Range divides the state into two very different regions so far as vegetation is concerned. West of it the rainfall is very heavy; east, it is very light. The western part is very heavily forested, but few forests are found in the eastern part of the state.
7. Between the Cascade and the Coast ranges fruit raising is the most prominent industry.
8. The first National bank west of the Rocky Mountains was established in Portland in 1865.
9. The Japan current flows along the west coast and this has a very material effect upon the climate and the rainfall of this section of the state.

QUESTIONS AND SUGGESTIONS FOR STUDY OF OREGON

1. Which is farther north, the southern boundary of Oregon or the northern boundary of Pennsylvania?
2. Why is the rainfall in the south-central part only about 6 inches, while on the coast it is 85 to 90 inches? What effect does that have on vegetation?
3. Which is the most valuable kind of tree in Oregon? Why?
4. What is done with most of the wheat raised?
5. What did John Jacob Astor have to do with the early settlement of Oregon? Did the Lewis and Clark Expedition have anything to do with it?
6. Compare the salary of Oregon's governor with that of your own state governor.

7. Compare the railway mileage with that of Washington.
8. Make a study of Columbia River according to outline of Nile River.
9. How far has the estuary of the Columbia been improved for navigation?
(See article on COLUMBIA; also read article on JETTIES.)
10. What improvements are being made in the Columbia?
11. What makes Portland such an important commercial center?
12. Where does Portland get her supply of electric current?
13. When are salmon taken for canning? (See article on SALMON.)

NOTABLE FACTS ABOUT TEXAS

1. Texas has 262,398 square miles of land, of which 11.6 per cent is improved. Its population is 3,896,592, or 14 persons to the square mile. The German Empire has 208,780 square miles of land, of which 91 per cent is improved. Its population is 64,903,423, or 310 persons to the square mile.

2. The western part of the state is known as the Staked Plain and consists of large treeless steppes. Nearly all the rivers flow to the southeast and empty into the Gulf of Mexico. The western part of the state has little rainfall; the eastern and central parts are well watered.

3. Texas was originally a part of Mexico. It declared its independence in 1836 and was annexed to the United States in 1845—this causing a war between the two countries. It was first settled by Spanish missionaries in an effort to hold the country against the claims of France. These were based upon the expedition of La Salle.

4. The principal agricultural products of the state are cotton, sheep, and cattle. It has a great variety of both plants and animals. Cypress, cedar, oak, cottonwood, pecan, and pine trees abound, but in different parts of the state. In certain portions are found the coyote, the jackrabbit, and the prairie dog; in other parts are found the jaguar, armadillo, bear, deer, and opossum. Birds are numerous.

5. All kinds of geological formations are found. The principal mineral productions are petroleum, gypsum, limestone, coal, and copper.

6. The smallest rainfall is in the west; the largest in the northeast—the range being from 5 to 60 inches. The temperature is highest on the western uplands and seldom goes below freezing at Galveston and other coast points. Crops bring from \$15 to \$90 per acre, on the average.

7. The state has a free public school system, several normal schools, a state classical university, a state college for instruction in agriculture and mechanics, and a number of private denominational colleges and universities.

QUESTIONS FOR STUDY

1. Why have the people of the German Empire improved 80 per cent more of their land than the people of Texas? Is it better land? Will Texas land support only fourteen persons to the square mile?

Why does the land of the German Empire support twenty-two times as many people per square mile as Texas does? How does Texas compare in size with other prominent states?

2. What can you say of the age and character of Texas land? What minerals are found in the state? Where are they?

3. Is Texas climate uniform? Explain its rainfall. Can you account for the difference in heat in different parts of the state? What is the average value of Texas crops? Which are its principal farm crops, fruits, and flowers?

4. Why are there few trees in western Texas? Why do the most of the rivers flow to the southeast? Can you give any notable exceptions?

5. By whom was the state founded? Where? When? Tell all about its becoming a state.

6. What does Texas export principally? What does it import? What means of transportation are used?

7. Has it any forests? Where? Why do certain timber trees grow at the places named? What is a pecan tree? Is it grown for timber? Why are few wild animals now found in Texas?

8. Is Texas a mineral, an agricultural, or a manufacturing state?

PRODUCT MAP OF GEORGIA

1. Georgia is said to be the largest state east of the Mississippi River, and was one of the thirteen original states. It is called the Empire State of the South. What other state is called the "Empire State" of the Union? Why?

2. The Blue Ridge and the Cohutta Mountain ranges terminate in the northern part of the state. Lookout Mountain, Tallulah Mountain, the Kenesaw Mountains, and Stone Mountain, with others, are detached ranges or peaks noted historically, or for their mineral products.

3. The Chattahoochee River has been made famous by a poem of one of Georgia's writers—Sidney Lanier. It starts in the northeastern corner of the state and bounds the southwestern half. What part of its course is described in *The Song of the Chattahoochee*?

4. Georgia is noted for its marble, its granite, its cement products, and its clays. These are used in buildings, in street paving, and in making pottery, chinaware, bricks, sewer pipes, etc. Coal, iron, gold, and roofing slate are also important products.

5. In manufactures Georgia ranks high—the total value of its product in this line by the census of 1910 being nearly \$160,000,000. There were over 3,200 manufacturing establishments and over 62,000 wage earners employed in them. The largest items of manufacture were cotton goods, lumber and other timber products, and fertilizers.

6. About 24,000,000 acres are cultivated—mostly by negro labor. Sea Island cotton is noted for its long staple. Watermelons and peaches are produced in large quantity and excellent quality. Next to cotton, the most important agricultural products are sugar-cane, corn, tobacco, and rice.

7. In literary development, religion, and charity the state ranks high. It has a fine public school system, higher educational institutions for both white and black, two state normal schools, a school of technology, a college of agriculture, and numerous private colleges and seminaries. The state contains fifty-nine benevolent institutions.

QUESTIONS ON GEORGIA

1. Study the productions of Georgia and the sections in which they are most abundant.

2. Would you infer from this study that the soil of the state is of one kind? What reason for your answer?

3. What does this product map teach you as to the surface of the state? As to its drainage?

4. Name five minerals found in the state in paying quantities. Which of these are most abundant?

5. In what part of the state are the forests most abundant? What are the principal varieties of trees in Georgia forests? What commercial products are obtained from them?

6. What fruits and melons are produced? Where? How are they cultivated? What are some of their insect enemies? Of their diseases?

7. What other plants produce good crops? Do any of the people of the state engage in market gardening?

GEORGIA



8. What trees are cultivated in the state for the sake of their nuts? What other kinds of groves in southern Georgia?

9. How is the peanut grown? Tobacco? Cotton? What part of each plant is used? Mention some of the manufactured products of each.

10. How is sugar made from sugar-cane? Why is some sugar brown and some white? Why is some sugar in powder, some in grains, and some in cubes? From what other sources is sugar obtained? Of what use is the sugar-bird?

11. How is sugar-cane propagated? Is Georgia the largest producer? Does sugar-cane furnish any other product for man than sugar? Is sugar obtained from it in the same way as from beets? What use is made of the bagasse?

12. Which are the principal cities of Georgia? For what are Atlanta, Macon, and Savannah noted? Name an incident of the Civil War connected with each city. (See maps in outline of United States History.)

INTERESTING FACTS ABOUT ILLINOIS

1. Illinois is noted in early history for the expeditions of Marquette, Joliet, and La Salle; in internal growth, for having the second city in size and importance in the Union; in general development, for its prominence in finance, in manufacturing, in agriculture, in mining, in transportation facilities, and in art and educational equipment, and for its variety in climate and soil.

2. The name is taken from that of an Indian confederacy of five tribes. Originally it was "Illini" or "men," but it was changed to Illinois by the French explorers. George Rogers Clark captured Kaskaskia from the British in 1778. The Illinois tribe of Indians was exterminated at Starved Rock because of the assassination of Pontiac.

3. The surface is of slightly undulating prairies; the soil mostly a rich loam; its geographical position gives it moderate temperature and good rainfall; and so it is prominent as an agricultural state. Over 90 per cent of its area is in farms—its farm lands being valued at nearly \$2,000,000,000, its corn product alone being 370,000,000 bushels, and the number of its domestic animals estimated at 9,703,000.

4. Reports of the United States Census as to the development of the state in other lines are to be found in the body of this work. (See Statistics under ILLINOIS.) The principal cities are Chicago, Peoria, East St. Louis, Springfield, Rockford, and Quincy.

5. The state is noted for its public school system, its educational and charitable institutions, the attention given to questions of public health, and for the efforts to educate the people to the use of art in public buildings, in parks, on private grounds, etc.

6. No business corporation can be created in Illinois by special laws; bank stockholders are liable for double the amount of their stock; and competing railroads are forbidden to consolidate.

QUESTIONS ON ILLINOIS

1. Describe the trip of Marquette and Joliet. What was its purpose?

2. Which is the largest city in Illinois? What are some of its notable public buildings and public parks? For what else is the city noted? (See article on CHICAGO in the body of this work.)

3. What are some of the principal manufactures of the state? Principal mineral products?

4. Who was George Rogers Clark? Of what importance was his capture of Kaskaskia?

5. What are some of the principal cereal products of the state? Fruits? Root products?

ILLINOIS

The Prairie State



- | | | | | |
|----------------------|---------------|------------------------|-------------------|-------------|
| 1. Black Hawk Statue | 5. Railroads | 9. Hogs | 13. Petroleum | 18. Douglas |
| 2. Butter & Eggs | 6. Commerce | 10. Canal, Power Plant | 14. Fishing | 19. Lincoln |
| 3. Grain & Hay | 7. Distillery | 11. Coal Mining | 15. Fruit, etc. | 20. Logan |
| 4. Old Ft. Dearborn | 8. Stockyards | 12. Lincoln Monument | 16. Manufacturing | 17. Grant |

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H.M.H.

CHICAGO

LAKE MICHIGAN

INDIANA

MICHIGAN

HAMMOND

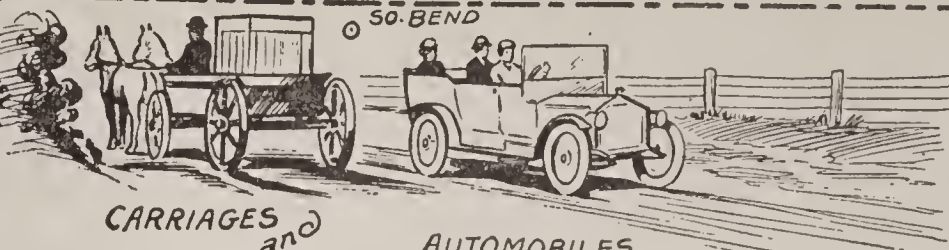
GARY

IRON & STEEL PRODUCTS

SO. BEND



SLAUGHTERING
& MEAT PRODUCTS

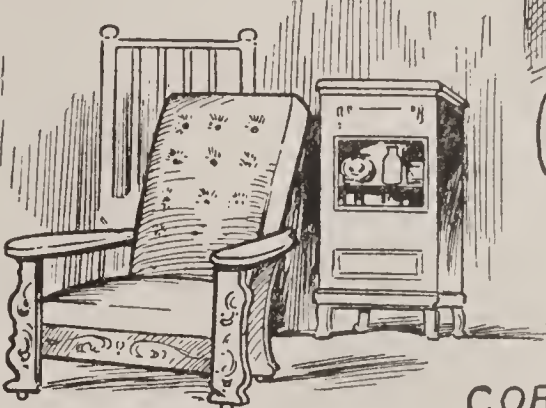


CARRIAGES
and
WAGONS

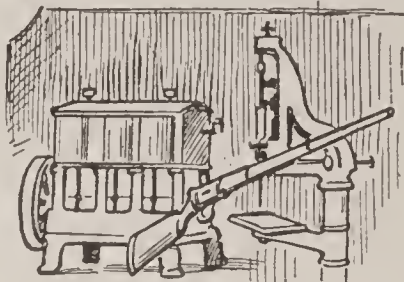
AUTOMOBILES



GLASS



FURNITURE &
REFRIGERATORS



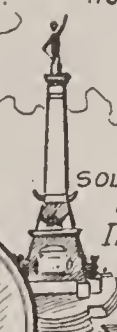
FOUNDRY & MACHINE SHOP
PRODUCTS



COAL

CORN
AGRICULTURAL
PRODUCTS

CORN



SOLDIERS
MONUMENT AT
INDIANAPOLIS

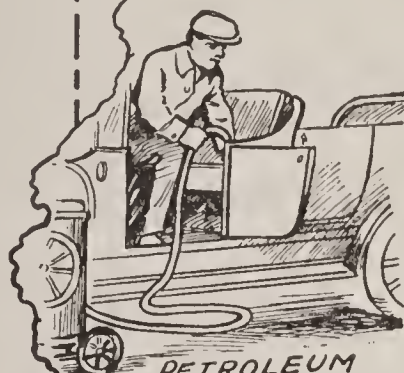


JAMES WHITCOMB RILEY

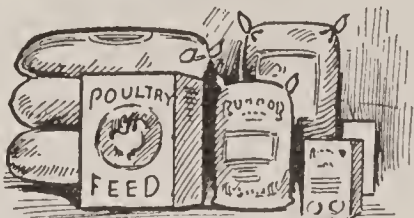
INDIANAPOLIS



LUMBER
&
TIMBER
PRODUCTS



PETROLEUM
AND ITS PRODUCTS



GRIST
MILL
PRODUCTS



IRON AND
STEEL
PRODUCTS



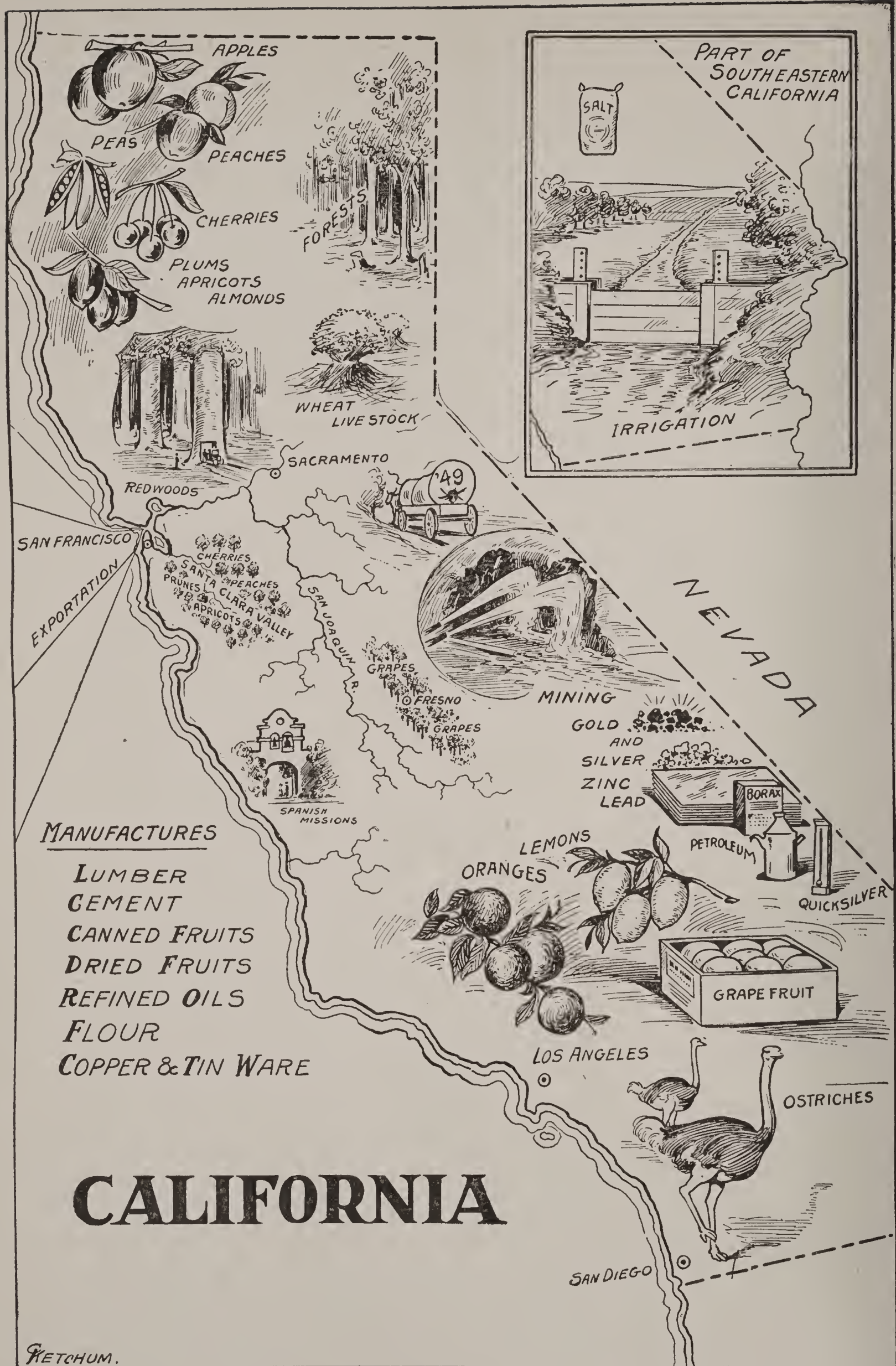
CORN

QUARRIES
LIMESTONE &
SANDSTONE

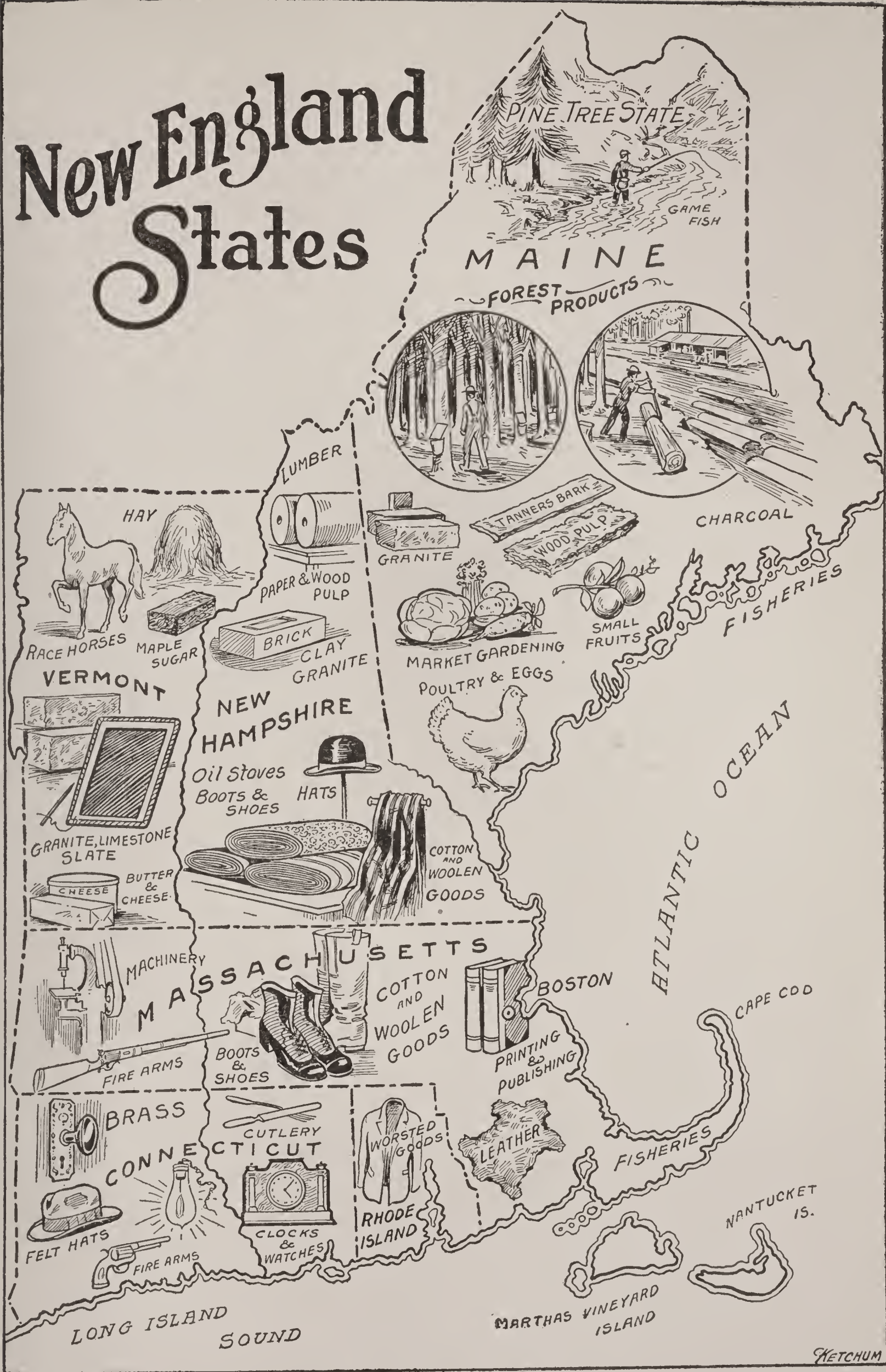
LIQUORS

KENTUCKY

KETCHUM

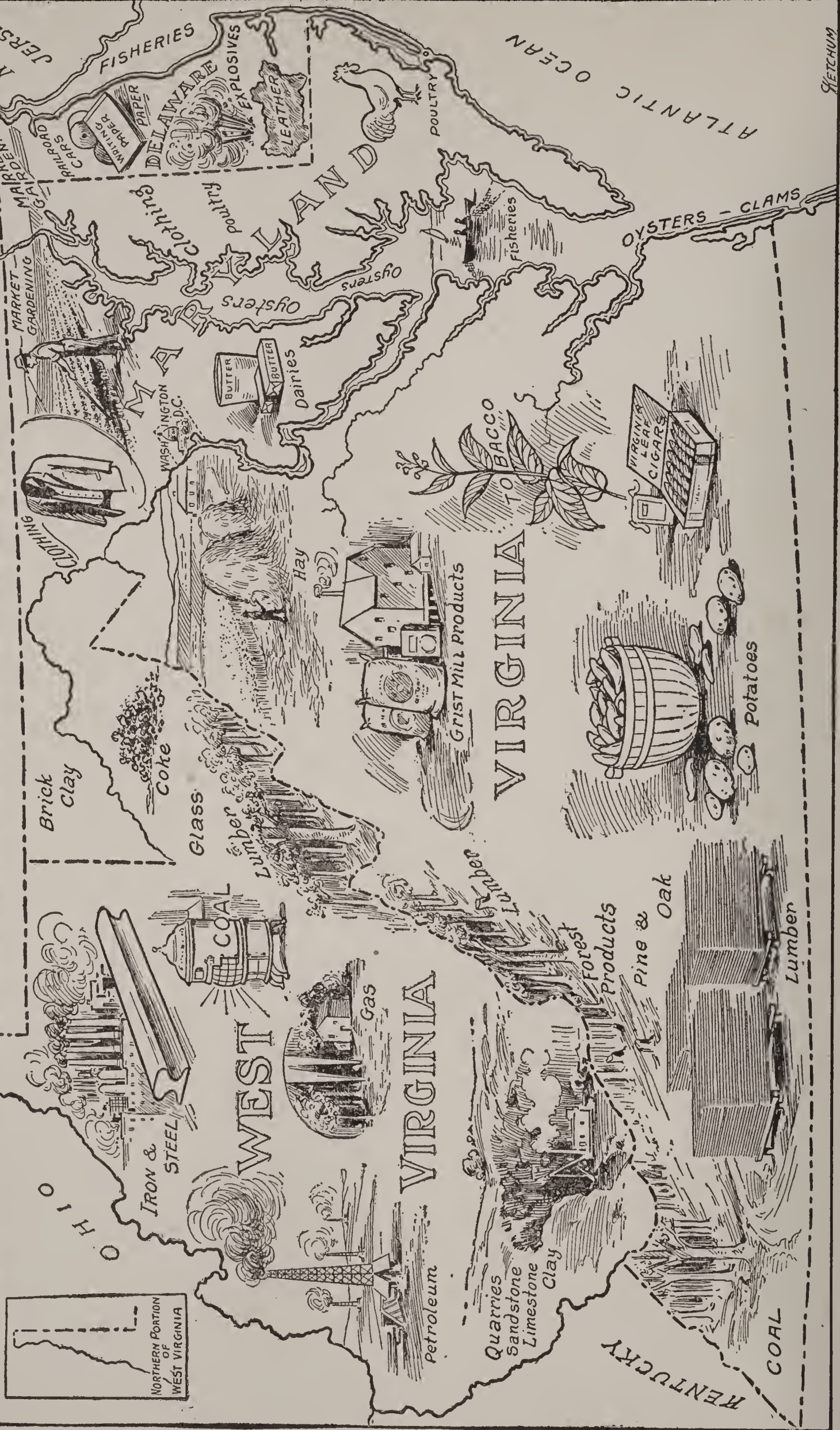


New England States



KETCHUM

VIRGINIA, WEST VIRGINIA, MARYLAND, DELAWARE



6. Name three insects and three insect larvae damaging to each of these crops. What means of destroying these insect enemies? Why use different insecticides?
7. What are the principal domestic animals found in the state? Mention a disease peculiar to each and tell how to treat it.
8. In what way does the Pure Food Law affect the manufacturers of Illinois?
9. What is dairying? What are dairy products? To what extent does Illinois engage in this industry?
10. Mention some of the means of public transportation. Of drainage. Of disposal of garbage and sewage.

PHYSICAL GEOGRAPHY

THE SEASONS—METEOROLOGY

DEVELOPMENT.

1. Observed by people of all periods of time.
2. Views of ancient peoples.
3. Superstitions and their influence (ancient, modern).
4. Present study of the subject.
Character?
5. Modern development.
 - a. Charts.
 - b. Maps.
 - c. Instruments (barometer, seismograph, anemometer, thermometer, etc.).
 - d. Study of air currents, their causes, course, effects, etc.
 - e. Observations and experiments.
6. The Weather Bureau.
 - a. Its purpose, forecasts, etc.
 - b. How maintained?
 - c. How beneficial to commerce?
 - d. How beneficial to agriculture?
 - e. How beneficial to general health?
 - f. Other benefits from it?

AIR PHENOMENA.

1. What is temperature?
2. Cause of air temperature? Why does it change?

3. Winds resulting from air changes:

- a. Land and sea or lake breezes.
- b. Regular air currents.
- c. Trade winds.
- d. Monsoons.
- e. Irregular winds.

4. Moisture distributed:

- a. Clouds, kind, causes, meaning.
- b. Vapor, its source and character.
- c. Fog, distinction from cloud.
- d. Dew, cause, benefits.
- e. Frost, description, hoar frost, black frost.
- f. Rain, formation, effects, mist.
- g. Snow, origin, forms, uses.

5. Storms and Cyclones.

- a. Cause.
 - b. Where most frequent? Why?
 - c. Course and increase in fury.
 - d. Effects on land; on the sea.
- #### 6. Special phenomena.
- a. Lightning, causes, kinds, effects.
 - b. Aurora Borealis, appearance, supposed cause.

WEATHER SIGNALS.

1. Where displayed?
2. To whom beneficial?
3. Kinds.

Suggestive reading and fuller information are found in the body of this work under SUNSHINE, WEATHER BUREAU, WIND, ANEMOMETER, SEISMOGRAPH, BAROMETER, THERMOMETER, AIR, TRADE WINDS, MONSOON, CYCLONE, CLOUD, FOG, DEW, FROST, RAIN, SNOW, AURORA BOREALIS, LIGHTNING, COMMERCE, TONNAGE, SPRINGS, etc.

EARTHQUAKES AND VOLCANOES

EARTHQUAKES.

1. What is an earthquake?
2. Examples.
 - a. San Francisco, 1906.

- (1) Extent of fault line.
- (2) Character of movement.
- (3) Destructiveness to life and property.

- b. Southern Italy.

(1) Frequency: 1688, 1693, 1783, 1909.

(2) Destructiveness.

c. Japan: 1891.

(1) Movement.

1. Vertical, 2 to 20 feet.

2. Horizontal, 13 feet.

(2) Destructiveness.

3. Frequency of minor earthquakes.

a. California averaged 36 yearly from 1889 to 1899.
- b. Japan, several per day.

c. Isthmus of Panama (169 recorded in 40 months).

4. Earthquake tidal wave.

a. What is it?

b. How produced?

c. Destructiveness: for example, Messina earthquake of 1909.

5. Distribution of earthquakes.

a. Western hemisphere.

b. Eastern hemisphere.

c. In relation to growing mountain regions.



- d. Away from growing mountain regions.
- e. Among islands of the sea.
- 6. Changes produced in land surface by earthquakes.
 - a. Cracks and fissures.
 - b. Drainage disturbed.
 - c. Landslide started.
 - d. Aquatic life often destroyed.
- 7. Causes.
 - a. Faulting and folding of earth's crust.
 - b. Volcanic explosions.
 - c. Landslides and avalanches.
 - d. Slumping on fronts of deltas and continental shelves.
 - e. Falling of roofs of underground caves.

VOLCANOES.

- 1. Introduction.
 - a. What is a volcano?
 - b. Shape of cone.
 - c. Classification.
 - (1) On basis of type of eruption.
 - (a) Quiet. (b) Explosive.
 - (2) On basis of material thrown out. (a) Lava. (b) Cinders, ashes, gases, solid rock.
 - (3) On basis of activity: active, dormant, extinct.
 - d. Crater.
 - (1) What is it?
 - (2) How formed?
 - (3) Size.
 - (4) Shape.
- 2. Examples of active type.
 - a. Vesuvius.
 - (1) Location.
 - (2) History of activity.
 - (3) Present size.
 - (4) Destructiveness.
- b. Stromboli.
 - (1) Location.
 - (2) Why called the lighthouse of the Mediterranean?
 - (3) Size.
 - (4) Position of the crater.
 - (5) Type of eruption.
 - (6) Kind of material thrown out.
- c. Hawaiian Volcanoes.
 - (1) Size of mountains and craters.
 - (2) Type of eruption.
 - (3) Kind of material thrown out.
 - (4) Relation to origin of the island.
- 3. Material thrown out:
 - a. Lava, cinders, ashes, fire, mud, and gases.
 - b. When beneficial? How?
- 4. Distribution and number.
 - a. Distribution of active volcanoes.
 - (1) In relation to the Pacific Ocean.
 - (2) In relation to the Mediterranean Sea.
 - (3) In relation to the Atlantic Ocean.
 - b. Number on land and in the sea.
- 5. Effects produced by volcanoes.
 - a. Build cones, mountains, islands, plateaus, etc.
 - (1) How?
 - (2) Material?
 - (3) Examples: Mt. Rainier, Canary Islands, Java, Pompeii, etc.
 - b. Changes or destroys cones, mountains, and islands by explosions or otherwise.

Post yourself by reading the articles on EARTHQUAKE, SAN FRANCISCO, HAWAII, VOLCANO, NICARAGUA, MEXICO, MESSINA, JAPAN, PHILIPPINE ISLANDS, ASHES, PUMICE, AVALANCHE, DELTA, POMPEII, JAVA, HECLA, AZORES.

THE OCEAN

GENERAL CONCEPTION OF THE OCEAN.

- 1. Distribution of ocean water over the earth.
 - a. Land compared with water surface, as to amount and as to effect on climate and on life.
 - b. Northern compared with southern hemisphere.
 - c. Peculiarities of Arctic and Antarctic oceans.
- 2. Area.
 - a. Of ocean basins.
 - b. Of continental shelves.

- c. In proportion to total area of earth's surface.
- 3. Depth.
 - a. Average in each of the five oceans.
 - b. Maximum in Pacific, Atlantic, and Indian oceans.
 - c. Causes of the varying depth.

THE OCEAN BOTTOM.

- 1. Shape of bottom.
 - a. Volcanic cones or mountains.
 - b. Valley-like depressions.
 - c. Plateau-like areas.
 - d. Lack of ruggedness compared with land? Why?
- 2. Material of bottom.
 - a. From the land underneath: sand, gravel, clay, rock, etc.
 - b. From organic sources: coral and oozes.
 - c. From volcanoes in the sea: lava, cinders, ashes, boulders, etc.

THE OCEAN WATER.

- 1. Composition.
 - a. Minerals: salt, magnesium, chloride, magnesium sulphate, potassium (chloride and sulphate), calcium bromide, etc.
 - b. Gases: nitrogen, oxygen, carbon dioxide.
- 2. Temperature.
 - a. Of the surface.
 - (1) Polar compared with equatorial region.
 - (2) Variation in same latitude. Why?
 - b. Beneath the surface.
 - (1) Variation with depth.
 - (2) Average of the deeper parts.
- 3. Movements.
 - a. Waves.
 - (1) Cause: why do they "top over" at the shore?
 - (2) Movement of water particles in a wave.
 - (3) Effect on the shore.
 - (4) What are "whitecaps."
 - b. Currents.
 - (1) Distribution in the Pacific, Indian, and Atlantic Oceans.
 - (2) What about Arctic and Antarctic Oceans?
 - (3) Direction of flow and velocity.
 - (4) Causes: trades, westerlies, monsoons.

- (5) Agents directing them: (a) Borders of continents. (b) Prevailing winds. (c) Rotation of the earth. (d) Landlocked bays.

- (6) Types: warm and cold with causes of each.

- (7) Effects on climate; windward compared with leeward shores.

- (8) Economic value to climate; to navigation.

4. Tides.

- a. What is a tide?
- b. Causes: attraction of heavenly bodies, especially the moon. Explain to the class.
- c. Height.
 - (1) In bays.
 - (2) In mid-ocean.
 - (3) Variation.
- d. Flood tides.
- e. Spring and neap tides.

OCEAN LIFE.

- 1. Types of life.
 - a. Animal; kinds and peculiarities.
 - b. Plants; kinds, where found.
- 2. Distribution.
 - a. In latitude.
 - b. In depth.
 - c. Near-shore compared with mid-ocean.
 - d. Factors affecting distribution.
 - (1) Food supply.
 - (2) Temperature.
 - (3) Depth.
 - (4) Enemies.
 - (5) Clearness.
 - (6) Quiet water and rough.
 - (7) Ice.
 - (8) Salinity.
 - (9) Birds.
 - (10) Winds.
 - (11) Ships.
- 3. Economic value.
 - a. Food supply: fish, crabs, lobsters, etc.
 - b. Manufactures: from plants, bones, shells, sponge, etc.
 - c. Jewelry: Pearls, Coral, etc.

ECONOMIC IMPORTANCE OF THE OCEAN.

- 1. Food supply and material for manufactures.

2. Aids commerce (highway for ships, telegraph, etc.).
3. Moderates climate of land.
4. Supplies moisture for rain.
5. Affords pleasure and health resorts.

References in the body of this work: articles on ARCTIC REGIONS, KANE, GREELEY, KAMCHATKA, ANTARCTIC CONTINENT, ATLANTIC OCEAN, PACIFIC OCEAN, CLIMATE, CORAL, VOLCANO, SALT, EQUATOR, WIND, MONSOON, EARTH, TIDES, Plants (General Index); Animals (General Index); THERMOMETER, HEAT, CLAM, CRAB, DELTA, TIDES, COBBES.

NILE RIVER SYSTEM

(Intended as suggestive in the study of RIVERS.)

GENERAL FACTS.

1. Location, both politically and physically.
2. Size of drainage basin compared with river basins in the United States.
3. Length of river.

CHARACTER OF CLIMATE IN REGION.

1. Amount and distribution of rainfall.
2. Distribution of temperature.
3. Vegetation.
 - a. Density along streams.
 - b. Density in White Nile region.
 - c. Obstacle to navigation. What is sudd?
 - d. Methods of removal from stream.

SOURCE OF WATER SUPPLY.

1. Lake region.
2. Abyssinian plateau region.
3. Why fourth in water discharge among African rivers?

TRIBUTARIES.

1. Upper portion of Nile.
 - a. Numerous tributaries. Describe and explain.
2. Reasons for absence of tributaries on lower portion of Nile.

DELTA.

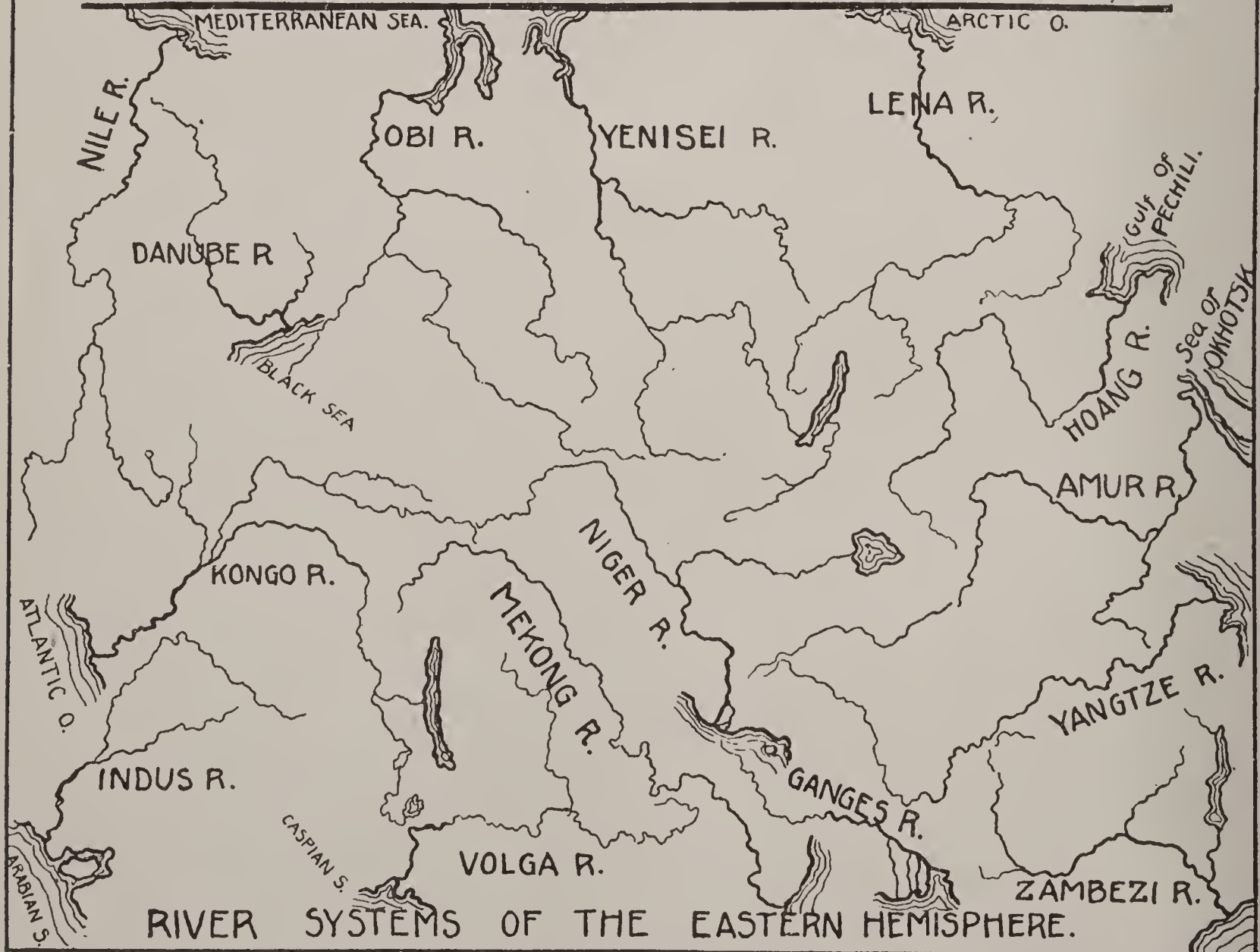
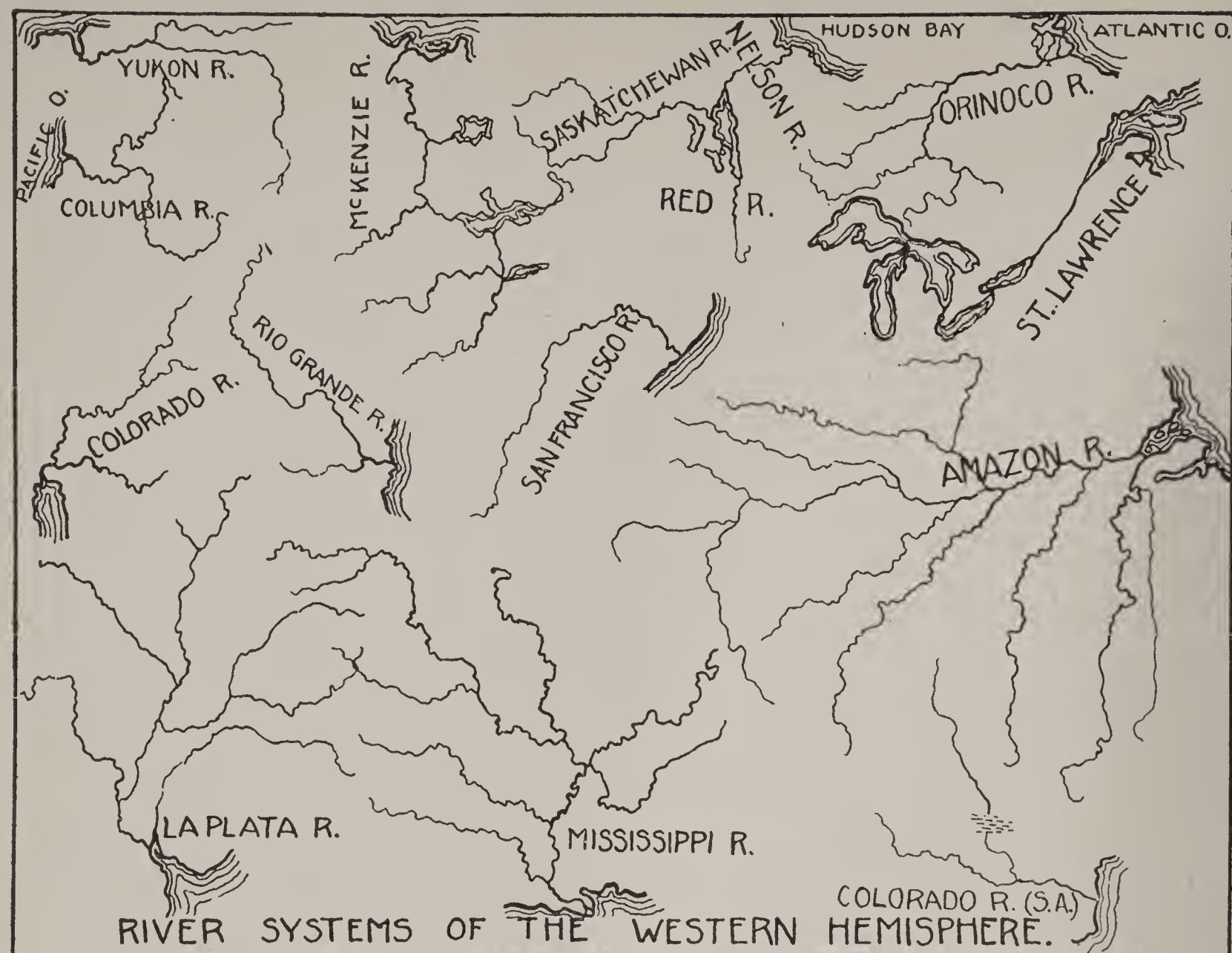
1. Size and how produced. What is silt?
2. Character of surface as to shape, soil, and fertility.
3. Economic importance.
 - a. Agriculture: cotton, wheat, rice, sugar cane, live stock, etc.
 - b. Transportation .via streams or canals.
 - c. Location of cities. To what due?

ECONOMIC RELATIONS.

1. Flood plains.
 - a. Extent and where.
 - b. Soil and how fertilized.
 - c. Relation to agriculture and distribution of population.



- d. Floods of the Nile.
 - (1) Past: character of, value.
 - (2) Present: how regulated.
2. Navigation.
 - a. Highway to Egypt.
 - (1) Navigable depth and how far.
 - (2) Kind of vessel.
 - (3) Kinds of products carried.
 - (4) Volume of traffic.
 - b. Cataracts and falls.
 - (1) Location.



- (2) Description.
- (3) Obstacles to navigation.
- c. Outlet for what other countries?
- 3. Cities.
 - a. Location of principal cities along the Nile.
 - b. Factors influencing location.
 - (1) River a route of commerce.
 - (2) Agricultural area.
 - (3) Products from interior Africa.
- 4. Fish.
 - a. Leading kinds.
 - b. Importance of industry.
- 5. Irrigation.
 - a. Present system.
 - b. Importance.
 - (1) Increased value of land.
 - (2) Increased value of crop.
- (3) Decreased floods.
- (4) Control of famine.
- c. Early methods.
- 6. Importance of Nile to Egypt.
 - a. Habitable portion not watered by Nile very limited.
 - b. What would Egypt be without the Nile? Theme: The Nile and Its Banks is Egypt.

HISTORICAL.

- 1. Early civilization confined to the Nile, especially the Delta.
- 2. Descriptive stories of early Egyptian history along the Nile, early Pharaohs, pyramids, etc., emphasizing dependence of people and development of civilization upon the Nile and its floodplain.

Interesting information will be found in the body of this work under the heads NILE, EGYPT, NYANZA, IRRIGATION, RAIN, ABYSSINIA, DELTA, COTTON, WHEAT (see Wells' note), SUGAR CANE, ALEXANDRIA, SUEZ CANAL, NILOMETER, PHAROAH, COMMERCE, MEMPHIS (Egypt), THEBES (Egypt), PUMP, FERTILIZER.

SPRINGS AND ARTESIAN WELLS

SPRINGS.

- 1. What is a spring? Distinguish from seepage.
- 2. Source of water.
- 3. Types of springs.
 - a. Permanent and intermittent; why does a spring intermit?
 - b. Hot, cold; why hot?
 - c. Mineral.
 - (1) Kinds.
 - (2) Source.
 - (3) Contents of hot compared with cold.
 - d. Medicinal.
 - (1) What makes a spring medicinal?
 - (2) Examples showing special usefulness.
 - e. Geysers.
 - (1) Characteristics.
 - (2) How formed.
- (3) Examples.
- (4) Value.
- 4. Conditions favorable for a spring.
 - a. Source of water above outlet.
 - b. Impervious clay or rock layer underlying the water.
 - c. An opening at some point below water source.
- 5. Volume.
 - Examples of large volume. To what due?
- 6. Deposition.
 - a. From hot and cold springs; why?
 - b. From geysers; description.
 - c. Quantity; examples of a few large springs.
- 7. Value.
 - a. For domestic water supply.
 - b. In sustaining flow of rivers.
 - c. Medicinal.
 - d. In beautifying scenery, etc.

Read carefully the articles in this work on HOT SPRINGS, ARK., YELLOWSTONE PARK, GEYSER, SPA, CARLSBAD, BADEN, SULPHUR, POPOCATEPETL, ARTESIAN WELLS, NEW ZEALAND, LITHIUM, BATH, VICHY.

ARTESIAN WELLS.

- 1. Types.
 - a. Name often applied to any unusually deep well.
 - b. Name applied to a self-flowing well (as used here).
 - c. Derivation of name; Artois, France.

- d. Artificial, constructed by factories and cities.
2. Conditions essential.
 - a. Porous rock layers to carry water.
 - b. Impervious layers both above and below the porous layer.
 - c. Porous bed must come to the surface in some region higher than the mouth of the well; a slope of one foot to the mile is sufficient.
 - d. Sufficient rainfall on exposed porous bed to keep it supplied with water.
3. Distribution: United States and other countries.
4. Depth: a few feet to over 5,000 feet.
5. Volume: a few gallons to over 5,000,000 gallons per day.
6. Value.
 - a. For domestic water supply in city and country.
 - b. For irrigation (note arid and semi-arid sections of the United States).
 - c. For supplying manufacturing establishments.
7. How long in use?

LAKES AND LAKE BEDS

WHERE THEY OCCUR.

1. In mountains: high and low, glaciated and unglaciated.
2. On plains.
 - a. Interior plains.
 - b. Coastal plains.
3. On plateaus (Africa, Great Basin).
4. Along rivers, especially rivers in old stage of development.
5. In both high and low latitudes.
6. Along coasts and lagoons. Relation to latitude.
7. In volcanic craters (Crater Lake).
8. On islands (Trinidad).

AREA AND DEPTH.

1. Large lakes.
 - a. Few in number (Great Lakes, Caspian Sea, etc.).
 - b. Area; compare with familiar area.
2. Small lakes.
 - a. Thousands in number.
 - b. Where most occur.
 - c. Reason for being found here.
3. Depth and shape of basin.
 - a. Great Lakes.
 - (1) Maximum and average depth.
 - (2) Surface compared with sea level.
 - (3) Depth compared with sea level.
 - b. Dead Sea, Titicaca, etc.

MOVEMENTS OF WATERS.

1. Waves; cause.
2. Currents; direction and cause, e. g., in the Great Lakes.

SALT LAKES, ASPHALT LAKES, ETC.

1. Why some are salty.
 - a. No outlet except evaporation.
 - b. Accumulation of mineral matter.

2. Source of asphalt and other substances.
3. Examples: Great Salt Lake, Pitch Lake, Death Valley.

CONDITIONS NECESSARY FOR A LAKE OR LAKE BED.

1. Basin with or without an outlet.
2. Supply of water, now or previously.
3. Decomposition.

SOURCES OF WATER.

1. Rain.
2. Melted snow and ice.
3. Rivers.
4. Springs and seepage.

HOW LAKES ARE FORMED.

1. By springs.
 - a. From the surface or underneath.
 - b. Of water.
 - c. Of pitch or other substances.
2. Glaciers.
 - a. By erosion, leaving valleys.
 - b. By deposition, stopping up valleys.
3. By crustal movements.
 - a. Downward warping of earth's crust.
 - b. Cracking and sinking of a block of earth's crust.
4. By rivers.
 - a. Cut-off meanders.
 - b. Abandoned portions of the channel.
 - c. Expansions of a river bed.
 - d. As terminations of desert rivers.
5. By volcanism.
 - a. In craters.
 - b. Obstruction of river valley by lava flow.
6. By waves and shore currents.



LAKE OF THE WESTERN HEMISPHERE.



LAKE OF THE EASTERN HEMISPHERE.

- a. By building bars across outer ends of sunken valleys.
- b. By building bars across bays, coves, etc.
- 7. By mountain valleys.

CHANGES IN LAKES.

- 1. Filling of basins by:
 - a. Deposition of inflowing streams.
 - b. Deposition of wave-eroded material in basin.
 - c. Deposition of plant and animal material.
 - d. Deposition of sand and dust by wind.

- e. Deposition of volcanic material.
- 2. Draining of basin:
 - a. By natural or artificial outlets.
 - b. By removing the contents.

VALUE OF LAKES.

- 1. For domestic water supply.
- 2. As a source of food.
- 3. For navigation.
- 4. As modifiers of climate.
- 5. As pleasure resorts.
- 6. As a source of borax, asphalt, medicines, etc.
- 7. As a source of power (see TITICACA).

In the body of this work the reader will find articles on LAKE, AFRICA, GREAT BASIN, GREAT SALT LAKE, MACKENZIE, ALKALI, LAKE AGASSIZ, Lakes (General Index); CASPIAN SEA, MINNESOTA, GREAT LAKES, BORAX, ASPHALT, SALTON SEA, TRINIDAD, VENEZUELA, SUEZ CANAL, LAKE TCHAD.

EROSION

The surface of the earth is constantly being changed by chemical action, by winds, waves, streams, and other causes. The process is usually slow, but, during long periods of time, produces important changes. While some sections are denuded of their soil, others are enriched. Rocks on mountains or hills are disintegrated and the dust carried away by winds or streams to the valleys below. Rivers and their tributaries cut their way into the surface and carry enormous quantities of silt to form deltas at their mouths or to be carried away by waves to distant shores. Waves often strike cliffs and headlands with tremendous force, tearing down, grinding up, or otherwise disintegrating even the most solid rocks. The material thus obtained forms no unimportant part of the soil of the earth and, taken into connection with the grinding and sliding of glaciers, it is a subject well worthy the attention of the student of geography.

CHARACTER OF EROSION.

- 1. What the process is.
- 2. Its causes.
- 3. Benefits; injuries; changes.

AERIAL EROSION.

- 1. Chemical action preceding. Explain.
- 2. Climatic effects on rocks; on soil.
- 3. Action of the wind. Illustrations.

EROSION BY RIVERS AND OTHER STREAMS.

- 1. Effects of moisture and temperature.
- 2. Action of the rain on particles thus produced.
- 3. Difference between "solution" and "suspension."
- 4. What is silt? What is a delta?
- 5. Describe the deltas of the Mississippi River; the Nile; the Po; the Ganges River.
- 6. What is the effect of geysers? Of glaciers?

- 7. Describe the results of stream erosion.
- 8. Do icebergs help this process.

EROSION BY WAVES, TIDES, ETC.

- 1. What is a water wave?
- 2. Difference between wind waves and tidal waves.
- 3. Mention two causes of tidal waves.
- 4. Give some instances of wave action, either direct or through the undertow.
- 5. How does the sinking of a shore help wave action?
- 6. What are tidal currents? Their effect?

SUBMARINE EROSION.

- 1. How helped by volcanic action?
- 2. Do earthquakes influence changes in the bottoms of the oceans?
- 3. How is the material distributed?

The reader will find fuller information on the topics outlined above by reading the articles in the body of this work on CHEMISTRY, DELTA, WIND, SOIL, ROCK, CLAY, HEAT, GEYSER, ICEBERG, GLACIER, VOLCANO, EARTHQUAKE, TIDES, AIR, etc.

FORESTS IN THE UNITED STATES

FOREST AREA.

1. Total 550,000,000 acres, $\frac{1}{4}$ of area of United States.
2. Public, 1-5 of forest area.
3. Original, 850,000,000 acres.
4. Divisions; northern, southern, central, Rocky Mountain, Pacific, Alaskan.

LUMBER CENTERS.

1. Pine forests of southern states being rapidly exhausted.
2. Pine forests of Lake States nearly exhausted.
3. Order of importance: Wash., La., Miss., N. C., Ark., Va., Tex.
4. Other woods used for lumber: cypress, oak, poplar, walnut, elm, maple, bass, etc.

YEARLY CONSUMPTION.

1. Firewood, 90,000,000 cords.
2. Lumber, 44,000,000 board feet.
3. Railroad ties, 124,000,000 feet.
4. For barrels:
 - a. In making 1,500,000,000 staves.
 - b. In making 133,000,000 sets of headings.
 - c. In making 500,000,000 barrel hoops.
5. Wood pulp, 3,200,000 cords.

6. Mine timbers, 165,000,000 cubic ft.

7. Distillation, 1,250,000 cords.

UNITED STATES FOREST SERVICE.

1. Historical.
 - a. In 1876 Dr. Franklin B. Hough made special agent.
 - b. In 1881 Division of Forestry created.
 - c. In 1901 Bureau of Forestry established.
 - d. In 1905 Care of National Forests added and the whole named Forest Service.
2. Forest Reserves.
 - a. By Harrison, 13,416,710 acres.
 - b. By Cleveland 25,686,320 acres.
 - c. By McKinley 7,050,089 acres.
 - d. By Roosevelt 148,346,924 acres.
 - e. By Taft 435,517 acres added; 2,037,645 acres eliminated. Total Reserves, 192,931,197 acres.
3. Income from forest lands in 1910.
 - a. From grazing, \$986,909.
 - b. From timber, \$1,043,428.
 - c. From special uses, \$59,810.
(25% of gross receipts spent for roads and schools of forestry in states where forests are located.)

WORK OF SYLVICULTURE

MANAGEMENT OF NATIONAL FORESTS.

1. Allows cutting of mature timber only.
2. Gives fire protection.
3. Aims at forest reestablishment.
4. Provides forest schools.
5. Studies the use of timber.

OBJECTS OF FOREST BUREAU.

1. To produce commercial timber.
2. To regulate the flow of streams.
3. To prevent destructive lumbering.
4. To promote tree planting and growth.
5. To secure private, state, and national forest reserves.
6. To suggest the best methods of producing commercial timber and of restoring desirable climatic conditions.
(7,400 acres planted to Douglas fir chiefly in 1910; 45 government

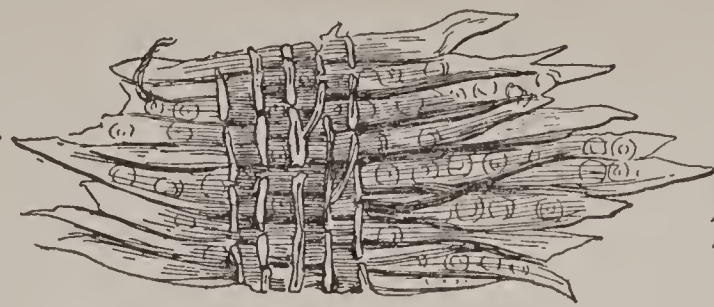
nurseries supply 18,000,000 trees per year. See preceding matter on Forests in the United States.)

SYLVICULTURE INVESTIGATION.

1. Now partly experimental.
2. Supported by the national government. Much individual and state assistance given.

COÖPERATION.

1. Foreign countries freely given the advantage of their experience.
2. The United States government prompt to show its realization of the importance of the forestry problem.
3. States give aid.
 - a. They examine forests, study problems, pass helpful laws, etc.
 - b. They share the cost.



Mechanical Wood Pulp.
Bundles of Fibres (Magnified).



Cut.

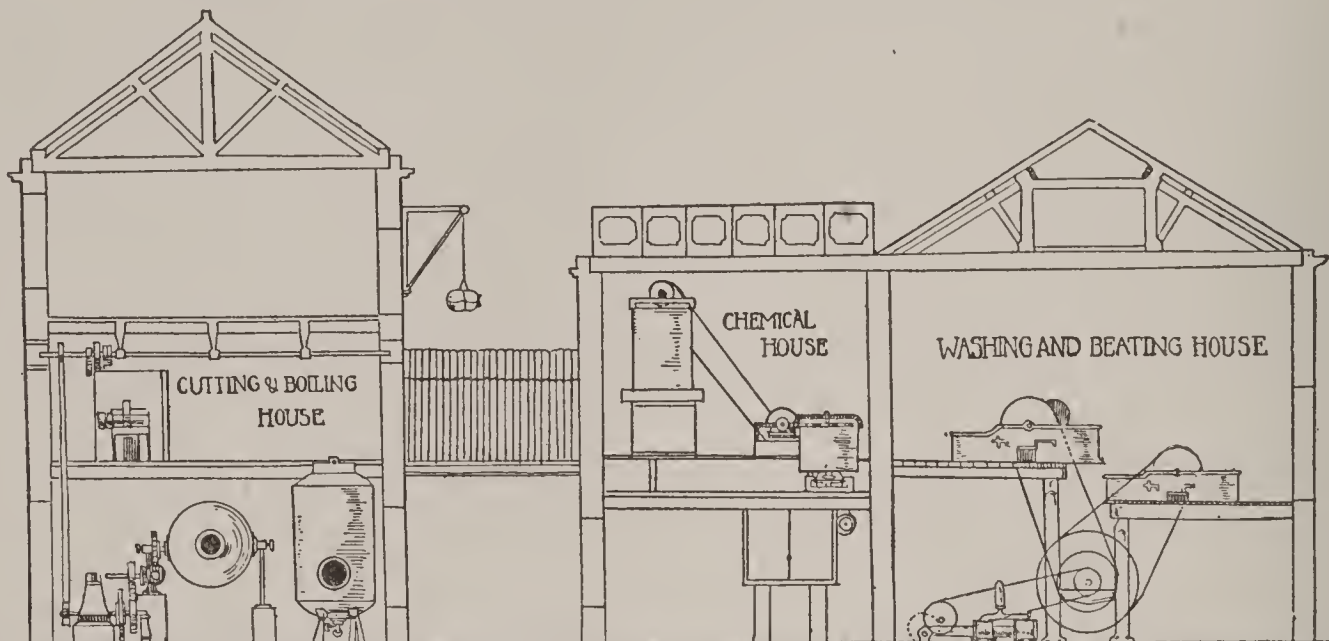


Washed.

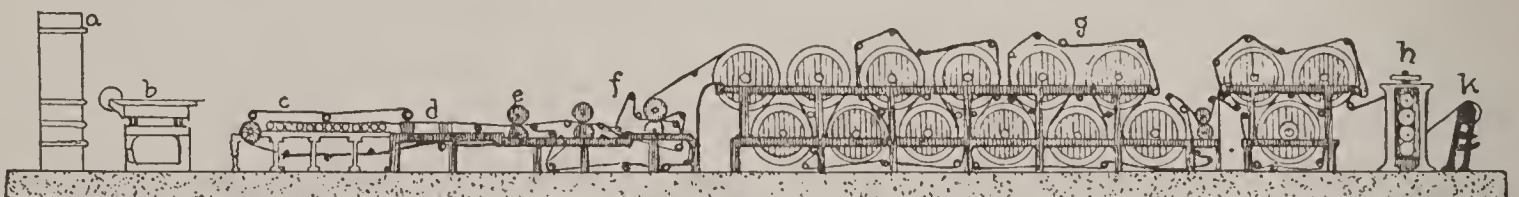


Bleached.

Rags in Various Stages.

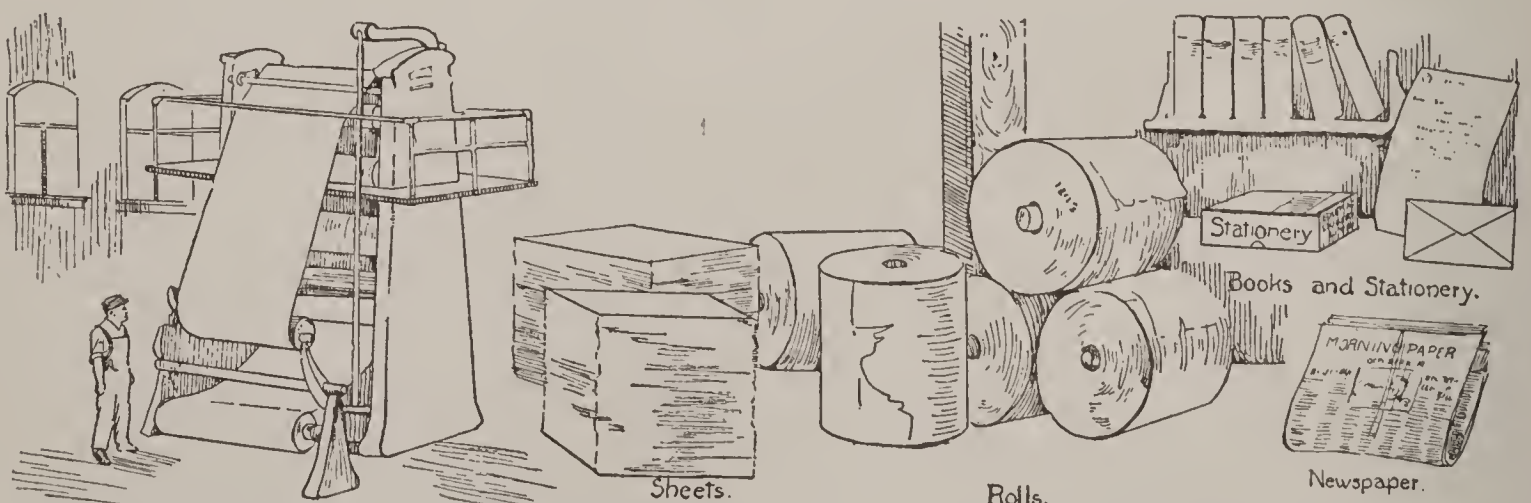


Sectional View of a Paper-mill, Showing Arrangements for Preliminary Treatment.



Sectional View of a Paper-mill, Showing the Paper-machine Room.

a, Stuff-chest; b, Strainers; c, Wire; d, Suction-boxes; e, Couch-rolls; f, Press-rolls; g, Drying cylinders; h, Calenders; k, Reeler.



Super-Calender

Sheets.

Rolls.

Finished Products.

Books and Stationery.

Newspaper.

Paper Making.

4. Private owners render valuable assistance.
 - a. They examine timber, suggest management and protection, etc.
 - b. Cost is often borne by an owner.

STUDIES AND TESTS FOR UTILIZING FOREST PRODUCTS.

1. In the University of Wisconsin.
 - a. To determine properties of American woods.
 - b. What treatment prevents decay.
 - c. What new wood may be used for paper pulp.
 - d. How to utilize the waste of all operations.
2. In the office of Wood Utilization, Chicago.
 - a. Economy in using wood in manufactures taught.
 - b. Kind, quality, and cost in different states studied.
 - c. Where produced and percentage of waste examined into.
3. In the Western States there are centers at Denver, San Francisco, and Portland.

STATE POLICIES.

1. New York.
 - a. 1,600,000 acres in Adirondack and Catskill Mountain ranges set aside.
 - b. Fire protection established.
 - c. In 1909, 1,005,325 forest tree seedlings distributed to private owners.
 - d. Waste lands being planted to forests.

- e. Training school at Cornell University.

2. Pennsylvania.

- a. 920,000 acres purchased; more may be purchased at \$5 an acre or less.
 - b. Located so as to protect the water supply of cities.
 - c. Scientific management, fire protection, mature timber only cut and sold.
 - d. Training school for forest rangers maintained at Mont Alto.
 - e. Distributes trees for planting, advises private owners.
3. Minnesota, Wisconsin, Michigan, Montana.
 - a. Each state has more than 200,000 acres.
 - b. Fire protection provided, open land planted, mature timber cut and sold, etc.
 - c. Private forests protected, seedlings distributed, etc.
 4. Ohio, New Hampshire, and Vermont. Advice given and seedlings distributed.

5. Other states giving protection: Maine, New Hampshire, Virginia, Massachusetts, Connecticut, New Jersey, Maryland, Oregon, California.

FOREST SCHOOLS AT UNIVERSITIES.

Special instruction in Forestry is given by Yale, Harvard, Michigan, Minnesota, Nebraska, Montana, and other universities.

References to the body of this work: Articles on FORESTRY, FOREST SERVICE, EUCALYPTUS, PINE, LUMBERING, FLORIDA, FURNITURE, PAPER, DISTILLATION, TURPENTINE, COOPER, RAILROAD, TIMBER, etc.

THE FISHING INDUSTRY

DISTRIBUTION OF WORLD'S FISHING GROUNDS.

1. In the north Atlantic.
2. In the north Pacific.
3. Inland: lakes and rivers.
4. Factors favoring concentration of fish in certain localities.

KINDS AND DISTRIBUTION OF WORLD'S PRINCIPAL COMMERCIAL FISHERIES.

1. Oysters, where?
2. Salmon, where?

3. Cod, where?
4. Shad, halibut, herring; where?
5. Lobsters, crabs, clams; where?
6. Sponge, where?
7. Whale, where?
8. Seal, where?

DISTRIBUTION OF INDUSTRY IN THE UNITED STATES.

1. By groups of states.
 - a. New England; value of product, chief fish.

- b. Middle Atlantic; value of product, chief fish. What proportion of the total United States product is produced by those two groups?
- c. Alaska; value of product, chief fish, proportion produced.
- d. Pacific coast states; value of product, chief fish.
- e. Interior states; value of product, chief fish.
2. By Alaska and individual states.
 - a. Alaska.
 - b. Massachusetts.
 - c. Virginia.
 - d. New York.
 - e. Illinois.
 - f. Washington.
 - g. Wisconsin.
 - h. Louisiana, etc.
3. Largest fishing ports.



References in the body of this work: Articles on FISHERY, SARDINE, SEAL, CANNING, OYSTER, SALMON, SHAD, SPONGE, HERRING, COD, LOBSTER, WHALE, AMBERGRIS, WHITEFISH, HALIBUT, PEARL, CUBA, PHILIPPINE ISLANDS, CEYLON, SOUTH SEA ISLANDS, FERTILIZER, etc.

THE COAL AND IRON DISTRICTS OF THE UNITED STATES

COAL DISTRICTS OF THE UNITED STATES.

1. Anthracite region: tons available, proportion of total in the United States. (Other kinds of coal are cannel, bituminous, and lignite.)
2. Eastern province.
 - a. Extent.
 - b. Kinds of coal and quality.

- c. Quantity of coal available.
3. Interior province.
 - a. Extent.
 - b. Location of distinct regions.
 - c. Kinds of coal and quality.
 - d. Quantity of coal available.
4. Gulf province.
 - a. Extent.

VALUE OF INDUSTRY IN THE UNITED STATES.

1. Total for the United States.
2. By kinds of fish.
3. Oysters and salmon form what percentage of total product?

CANNING AND PRESERVING INDUSTRY.

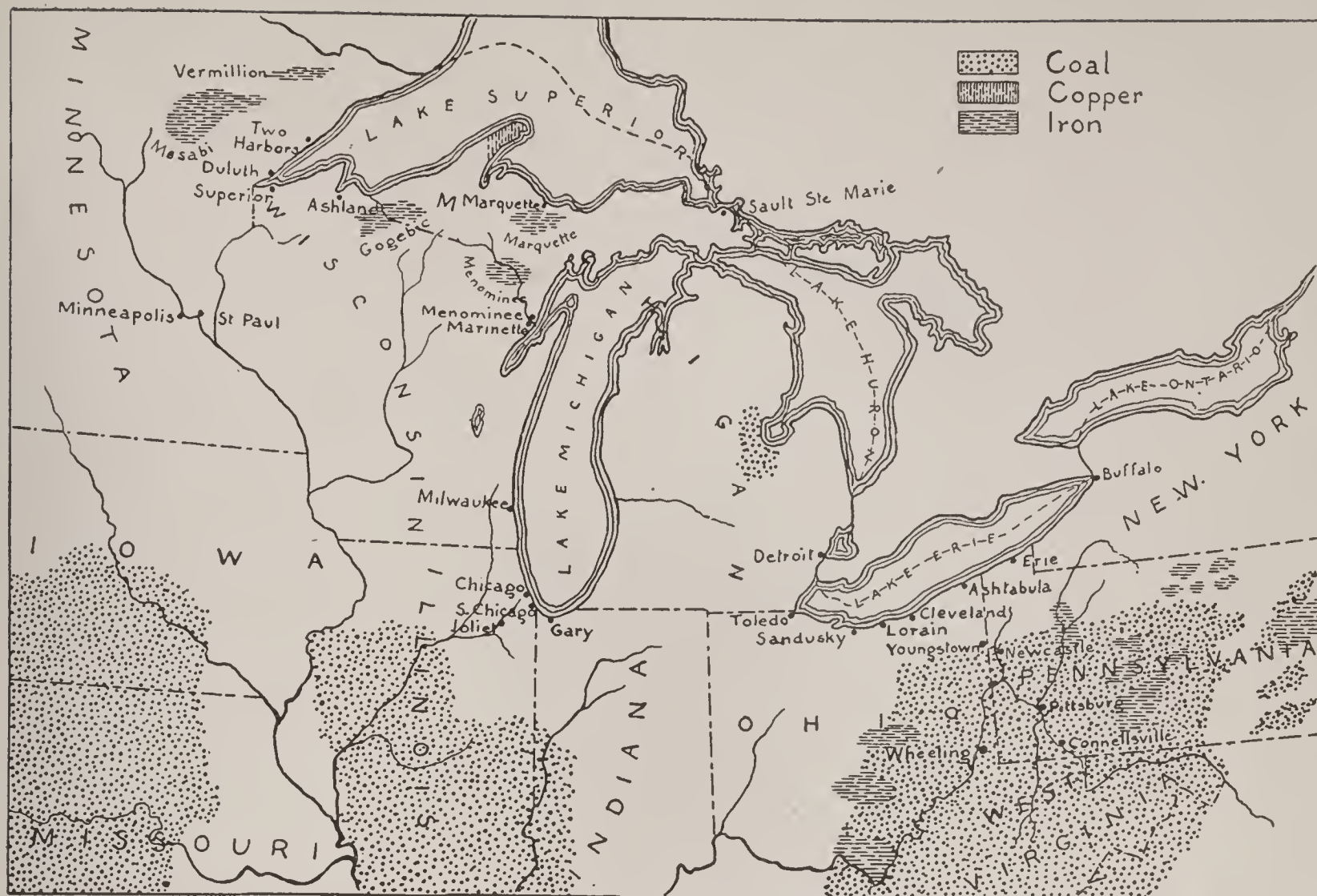
1. Location of principal centers.
2. Factors determining location.

METHODS OF FISHING.

1. Old methods; hook and line, etc.
2. Modern; steam vessels, nets, etc.

BY-PRODUCTS FROM FISH.

1. Ambergris (used in making perfumes).
2. Whalebone (used in ladies' clothing).
3. Codliver oil (used as a medicine).
4. Pearl (as ornaments and in manufacturing).
5. Furs (used for clothing).
6. Fertilizing material (for soil).



MINERAL BELTS ABOUT THE GREAT LAKES

- b. Kinds of coal and quality.
- c. Quantity of coal available.
5. Rocky Mountain and Northern Great Plains provinces; extent, kinds, quality and quantity of coal.
6. Pacific province; extent, kinds, quality and quantity of coal.
7. Significance of distribution.
 - a. To commerce and to transportation agencies.
 - b. To manufacturing interests and growth of cities.
 - c. For domestic use.

IRON ORE DISTRICTS OF THE UNITED STATES.

1. Lake Superior region.
 - a. Leading ranges.
 - b. Kind and quality of ore.
 - c. Quantity of ore available and length of time it will last.
 - d. Relation to coking coal and steel manufacturing centers.

- e. Relation to water transportation.
- f. Supplies what percentage of total United States production?
2. Birmingham region.
 - a. Kind, quality, and quantity of ore produced.
 - b. Significance of proximity of coal, ore and limestone.
 - c. Supplies what percentage of total United States production?
3. Other iron ore districts.
 - a. Kind, quality, and quantity of ore.
 - b. Relative importance as producers.
4. In what form is the ore of each section?
5. How is iron changed to steel? What is the Bessemer process?
6. What is pig iron? Cast iron? Malleable iron? Wrought iron?
7. When manufactured into commercial iron or steel, to what uses are iron ore products put?

METHOD OF STUDYING COAL

NATURE OF COAL.

1. What it is.
2. Steps or processes in coal making.

3. Conditions favoring accumulation of coal-making material. What is its origin?

KINDS AND THEIR RELATIVE VALUES.

Stages from peat to black diamond coal.

RELATIVE VALUE OF ANNUAL PRODUCTION of coal, iron, copper, gold, silver, etc., in the United States.

IMPORTANCE OF COAL.

1. As a producer of power.
 - a. For manufactures.
 - b. For transportation.
 - c. For the navy and national defense.
 - d. For mines.
2. For heat and light (gas, electricity, etc.).
3. For iron and steel industries.
4. For domestic use (cooking, washing, etc.).

LEADING COAL PRODUCING COUNTRIES.

Show the relative importance of each.

PRODUCTION IN THE UNITED STATES.

1. By regions; relative importance, kind of coal. Map.

References in the body of this work: articles on COAL, PENNSYLVANIA, OHIO, INDIANA, ILLINOIS, KENTUCKY, TENNESSEE, ALABAMA, COLORADO, CHARCOAL, COKE, PITTSBURGH, BIRMINGHAM, ALABAMA, FUEL, ELECTRICITY, etc.

2. By states; relative importance, kind of coal.

RESOURCES OF THE UNITED STATES AND THEIR CONSERVATION.

1. What we have.
 - a. By provinces. (See "Coal Districts" above.)
 - b. By kinds of coal.
 - c. How long will it last at the present increasing rate of consumption? What then?
2. Substitutes for coal and their relative values.
 - a. Water power. Where? In what way?
 - b. Petroleum and natural gas.
 - c. Waves and tides. How?
 - d. Wind power. Illustrate.
 - e. Sunlight. Explain.
3. How to conserve what we have; how to stop waste.

RECLAMATION

IRRIGATION—DRAINAGE

IRRIGATION IN ANCIENT TIMES.

In Egypt, Phoenicia, Assyria, China, Mexico, Peru, United States.

EXTENT OF MODERN IRRIGATION.

In Spain, France, Switzerland, Belgium, Denmark, Austria-Hungary, India, Ceylon, Australia, Egypt, Algeria, United States, Mexico, Argentina, etc.

CONDITIONS INVITING IRRIGATION.

1. Arid and semi-arid regions.
 - a. Presence of rich unleached soil.
 - b. Abundance of sunshine and warm temperature.
 - c. Presence of permanent streams.
 - d. Large returns per acre.
 - c. Suitability of ground for reservoirs, ditches, etc.
2. Humid regions.
 - a. Failure of rains at certain times.
 - b. Increased production per acre.
 - c. Increased value of land.

SOURCES OF WATER FOR IRRIGATION.

From rivers, springs, wells.

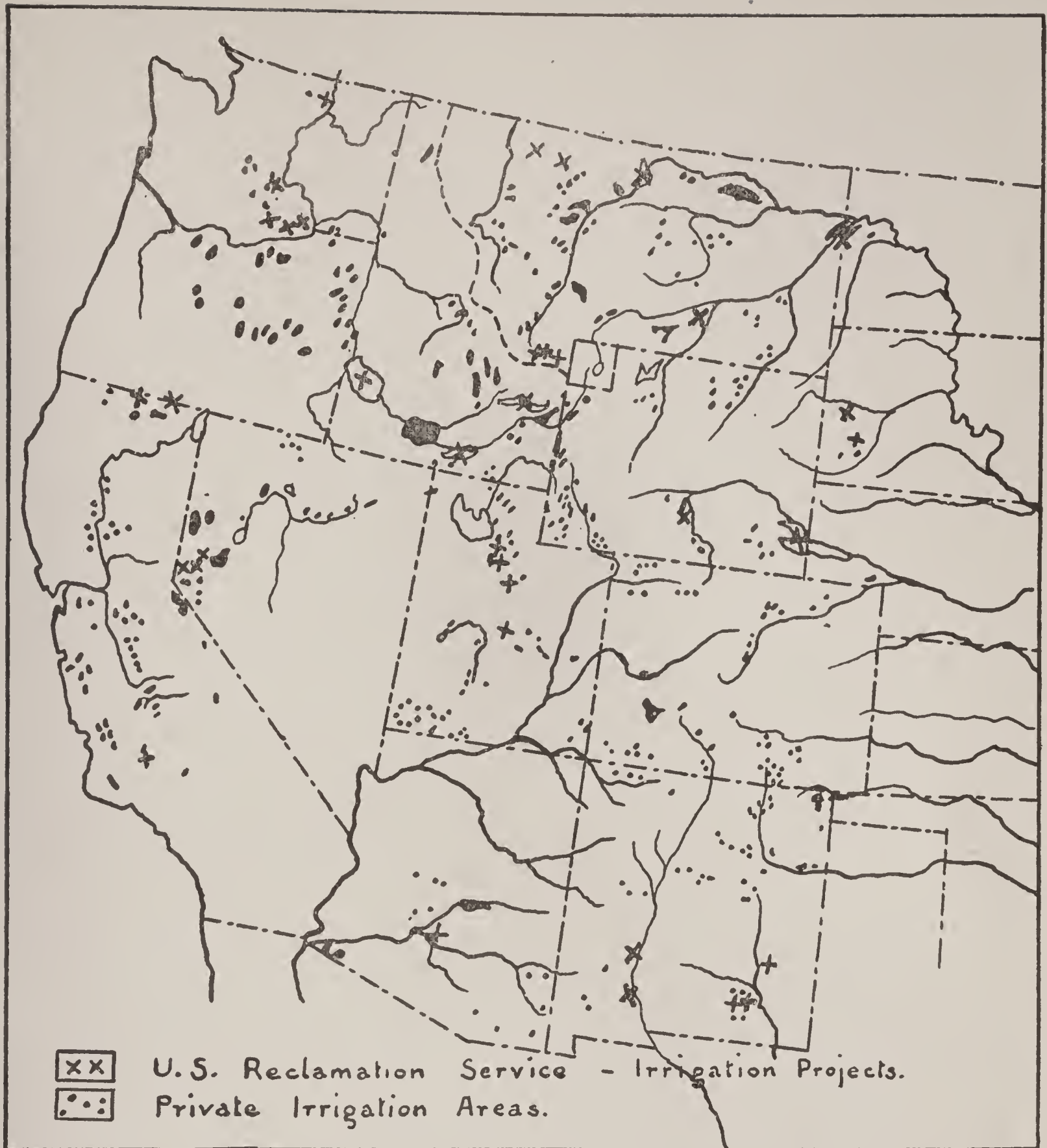
RELATION OF FORESTS TO IRRIGATION.

1. Check waste of rain and melting snow.

2. Check erosion of natural basins and help to fill reservoirs and canals.
3. Encourage rainfall and modify the climate.

IRRIGATION IN THE UNITED STATES.

1. Leading states practicing irrigation.
2. In the arid west.
 - a. Area requiring irrigation.
 - b. Area capable of being irrigated, and proportion of total area.
 - c. Factors limiting irrigable area.
3. Government aid.
 - a. How it helps the settler.
 - b. Projects completed and under way.
 - c. Description of one project, e. g., Roosevelt or Shoshone dam.
4. Importance of Irrigation.
 - a. Will increase crop area and production.
 - b. Will make homes for millions of people.
 - c. Will develop otherwise desolate areas industrially and commercially.
 - d. Will open the way for new crops, orchards, etc.



OBJECTS OF LAND DRAINAGE.

1. To get rid of surplus water.
2. To add to productiveness of the soil.
3. To bring new areas under cultivation.
4. To increase the amount and kinds of crops grown.
5. To affect the climate.
6. To encourage farming, immigration, etc.

DRAINAGE AREAS.

1. Lowlands in Louisiana, Mississippi, and Texas.

2. The Everglades in Florida.

3. The Dismal Swamp in Virginia.

4. Special sections of various other states.

BENEFITS FROM DRAINAGE.

1. Reduces the violence of floods.
2. Assists the disintegration of the soil.
3. Reduces the danger from frost.
4. Facilitates the production of better root crops.
5. Often prevents soil heaving.
6. Aids soil fertilization.

TRANSPORTATION

1. In the United States.

- ### 3. In Europe.

- a. Distribution.
- b. Mileage and equipment compared with that in the United States.
- c. Efficiency and freight rates compared with those in the United States.

- #### 4. In Asia and Africa.

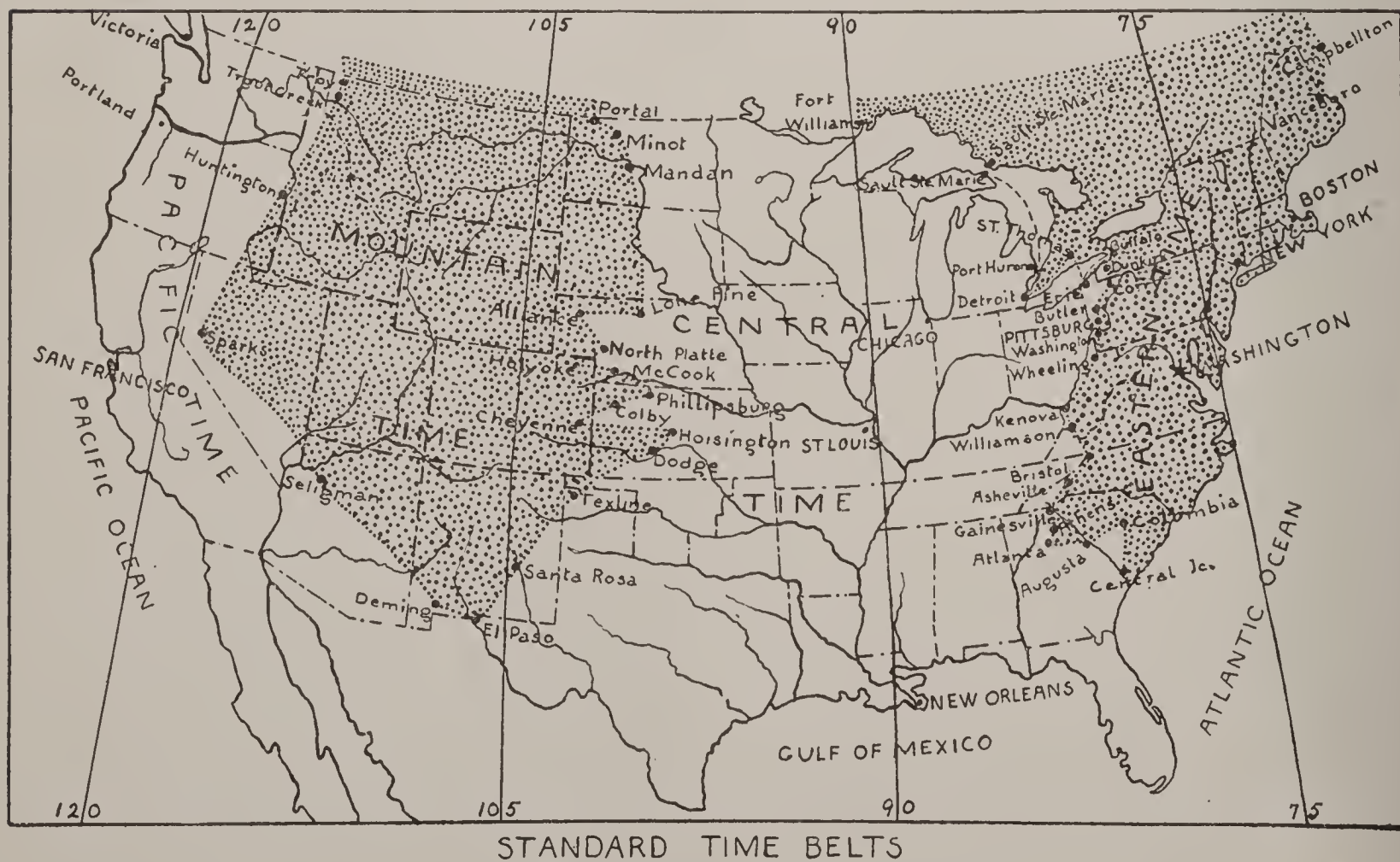
- a. Distribution.
- b. Efficiency.

5. In South America.

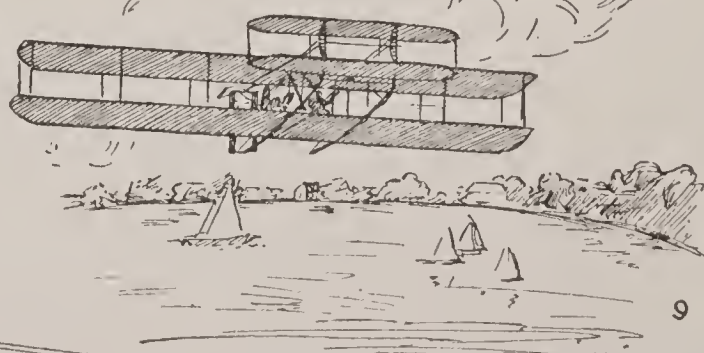
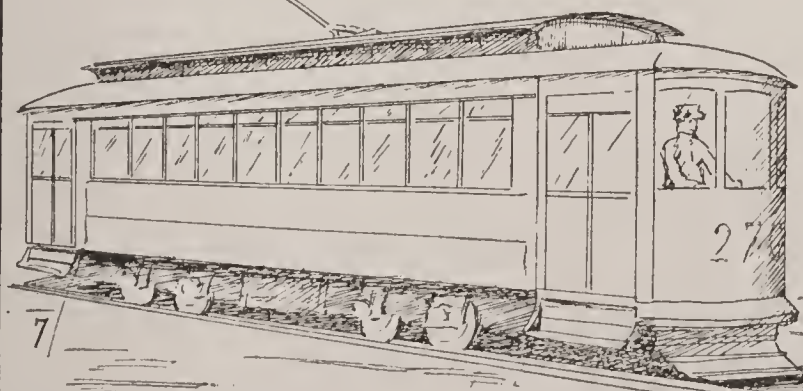
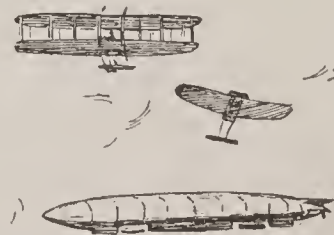
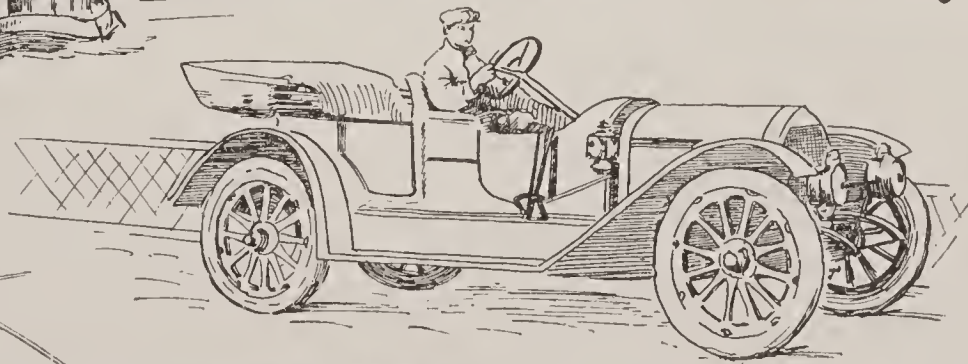
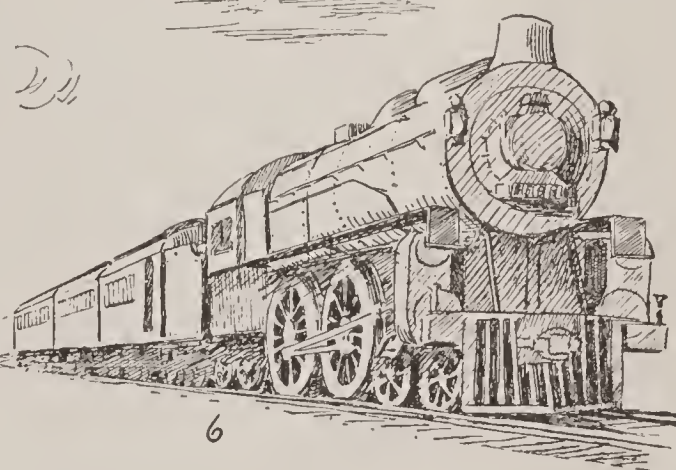
6. How are railroads and railroad rates regulated in the different countries?
7. Why are they regulated?

ON THE OCEAN.

1. Types of vessels first used.
2. Invention of the steamboat and its first trip.
3. Types of modern steamers and sailing vessels; speed, capacity, etc.
4. Location of the most traveled routes.
Map.
5. Factors determining routes of sailing vessels and steamers.



PROGRESS IN TRANSPORTATION



6. Freight rates compared with rates on land.
7. Principal nations using oceans as highways.
8. Importance of inter-oceanic canals: Panama, Suez, etc.
9. Is there any regulation of oceanic rates?

ON INLAND WATERS.

1. The Great Lakes.
 - a. Vessels compared with those on the ocean.
 - b. The most traveled routes and factors determining them.
 - c. Relative importance of their commerce.
 - d. What is carried most? How do railroads and the lakes compare as transportation routes?
2. Rivers of the United States.
 - a. The principal navigable rivers; limits of navigability.
 - b. Type of vessel compared with lake and ocean.
 - c. Relative importance of their commerce; influence of railroads; of canals.

- d. Their commerce compared with that on European rivers.

3. Canals of the United States.

- a. The principal canals; type of boat, limits of utility.
- b. Commercial importance compared with European canals.
- c. Purposes.

ON DESERTS, MOUNTAINS, ETC.

1. Camels, mules, buffaloes, etc.
2. Human carriers.

CARRIERS.

1. Is there more than one kind of carrier? Explain.
2. What obligations does the law place on carriers?
3. What liabilities must they assume?
4. What difference between an express company and other carriers?
5. Why is the law so strict upon carriers?
6. What kind of transportation does the postoffice do?
7. Have transportation facilities anything to do with the development of a section of country?
8. What connection has this with the study of geography.

Read the article on RAILROADS, CANALS, PANAMA CANAL, BUSINESS ECONOMICS, COMMERCE, statistics under the several countries named, STEAMSHIP, STEAMBOAT, LIGHTHOUSE, COMPASS.

PHYSIOLOGY, HYGIENE, SANITATION

THE NEW ERA

Perusal of newspapers and magazines with their revolting accounts of human folly, disease, and crime, convinces many people that this is the worst age the world has ever seen and that it is growing worse all the time. That is a mistake. The world is growing better, for the very reason that its evil is being dragged into the light, the causes of its disease and misery given wide publicity, and the weak and ignorant are being helped and instructed more and more zealously by all who love their fellowmen. There is nothing which evil in any form, whether disease germ or vice, hates so much as light and air.

When you are tired of reading about murders and suicides, disease, filth, and misery, refresh your thought and renew your courage by reading of the splendid movements now on foot in every direction to drive out all kinds of evil from the world. Try to catch that infection and then—lend a hand.

The central idea of the New Era is the value of the individual as an element of society. Other ages have also placed a high value on the individual, but only partially and always selfishly. Human beings have had value as slaves, as fighters, as workers, as playthings—now for the first time are they valued as human beings. The spirit of the New Era cries to every man, woman, and child: "You are the greatest thing in the world. For you was the Universe created. Each one of you is an important part of God's Great Plan."

And the second idea of the New Era is like unto the first—man is a unit, physically, mentally, morally; whatever is bad for his body is bad for his mind and morals, and vice versa.

Therefore science works hand in hand with religion, ethics, civics, industrial efficiency, and with every other form of progress when she ferrets out the hidden causes of physical evil and teaches each individual how to protect himself and others from disease.

THE FIRST STEP

The first step in that self-protection which goes under the names of Sanitation and Hygiene is Know Thyself.* A large part of the world's sickness is the result of ignorance, most of the rest is due to indifference. So Anatomy and Physiology step forward to introduce us to ourselves; then come Hygiene and Sanitation to dispel ignorance of the requirements of health and to substitute for indifference a sense of our personal responsibility. For everyone of us is his own and his brother's keeper, and we shirk the responsibility at our peril.

All that is due to the dawn of the New Era, which is only a scientific application and extension of the Golden Rule. What the full daybreak shall be will depend on what you and I do to help it along.

*This is not a new idea—simply a new application. Over the portico of the temple at Delphi, where was located the most famous oracle of ancient Greece, was inscribed this sentence: γνοθι σεαυτον (gnothi seauton), Know Thyself.

But the subject is too big to permit of full treatment in this place. An elementary knowledge of Anatomy, for instance, must be taken for granted, the reader being referred to the many excellent books devoted to that subject. Physiology can be taken up only in brief—just enough to prepare the way for the all-important message of Hygiene and Sanitation.

PHYSIOLOGY

The human body has been compared to all sorts of things; one of the best comparisons being to a republic. Modern science has revealed that the body is an organization of many subordinate parts, all closely coördinated, all controlled and energized by many sub-centers of nerve force, all dominated by one central, supreme Will. Failure to realize and act upon that great truth is the cause of a large part of the disease and misery in the world. How many have imagined that the way to be successful and happy is to gratify the body while neglecting the mind and morals! Others have exalted the mind and contemned the body, while still others have actually sought piety and spirituality at the expense of sustenance.

Modern science exposes the fallacy of all such partial views, and teaches that man is a unit, requiring the best condition of every organ and function in order to secure the highest efficiency and the most enduring health, happiness, and success.

THE HUMAN MACHINE

The body is often likened to a machine. There is a certain degree of truth in that likeness, but the simile is a dangerous one if pushed too far. What ails a great many people is the mistaken notion that they can safely treat their bodies as machines, for they fill up their stomachs as if stoking an engine boiler, run under forced draft day and night, and do a thousand and one things which even a boiler could not stand.

There is just one rule to follow if you would be healthy and happy—do as Mother Nature dictates. Just as surely as her commands are disobeyed she punishes the offender, not always at once, but in the end she is inexorable.

But how? Many plead ignorance of the laws of health in order to excuse their physiological sins. Whatever may have been the case in other countries or in other times, there can be no excuse today for any intelligent person habitually misusing the body. Nature is prompt in expressing her disapproval through the medium of pain and sickness, and her teaching is reinforced by the warnings of all physiologists in books, articles, and addresses without number. As a matter of fact, very few live up to the knowledge which they have of the laws of health. If all would do so, many doctors would be compelled to go out of business.

MODERN HYGIENE AND SANITATION

These terms may be summed up in one word—Prevention. Essentially it is a new idea, for ancient hygiene and sanitation—what little there was of it—took no account of the causes of disease, only of the effects. The only causes considered by the men of old time were demons, witchcraft, and “the gods”; but modern science has traced to their lurking places all the infinitesimal foes of health and has hung a flag of warning over each.

Looking through the eyes of the scientist we see water, earth, and air teeming with microscopic life; even our own bodies are the homes of countless myriads of bacteria. All these germs are in constant motion, each seeking persistently to follow out its natural tendencies. From our point of view most of them are beneficent; but many are harmful, and some are deadly. Such is the infinite importance of the infinitely small.

GERMS, MICROBES, BACTERIA, BACILLI

Those words have appeared so frequently of late in the public prints that everyone has seen them, but few know their exact meanings. In fact, they are commonly used as meaning the same thing, but there are important differences between them which should be understood.

Modern science has revealed to us through microscope and test-tube a whole world of teeming life never before suspected. It is infinitesimal in size but enormous in importance. For therein are found the issues of life and death, of health and disease; and no one can afford to remain ignorant of the essential facts. This microscopic life is both animal and vegetable, and diseases are being classified by scientists according to the nature of the germ which is the cause of each disease. For instance, consumption and diphtheria are due to the activity of microscopic vegetable organisms; most other infectious diseases are caused by animal organisms.

Germ is the most general term covering all microscopic organisms, vegetable or animal, benign or malign. A *microbe* is a form of bacteria, but this name is usually applied to the malign type. Bacteria are vegetable organisms, of which bacilli are a variety, such as the "rod-shaped" germ characteristic of tuberculosis. The majority of bacteria are not producers of disease. Their chief function is to destroy or to change the nature of animal and vegetable matter. But certain bacteria are credited with originating contagious and infectious diseases.

These parasitic bacteria are fond of our food, and too fond of us. Consequently our problem in life is to eat and not be eaten, and right here is the supreme importance of modern physiology and sanitation. These sciences have revealed the real cause of the awful and mysterious plagues which have afflicted mankind—consumption, typhoid, smallpox, diphtheria, yellow fever, malarial fever, bubonic plague, cancer, lockjaw—all caused by germs.

* Many people have read so much about microbes and about their invisibility being equaled only by their swarming malignancy, that such persons have become morbidly terrified. Some go to the extreme of declaring that it is useless to try fighting such foes—that it is all luck anyway whether we kill the germs or the germs kill us.

Neither view is wise. While it is true that modern science proves that our food and drink swarm with germs, and that myriads are constantly seeking a vulnerable spot where they may enter the body to start something, a way of escape is at the same time pointed out. One of the most vulnerable spots is the mouth, through which many deadly germs, especially of lung diseases, find easy entrance. Therefore, keep your mouth shut except when eating or talking. Never allow anyone to talk right into your face, as so many have a bad trick of doing; stand them off at least a couple of feet anyway.

MILK, THE HOME OF BACTERIA

Milk is a peculiarly favorable "culture" for germs, and through that food they can attack man when he is weakest—in infancy. The sensible thing to do is to surround our milk supplies with every possible safeguard, and that is what the most intelligent communities are doing. In 1910 Chicago consumed more than 9,000,000 gallons of milk—including, incidentally, two carloads of milk dirt. Vigorous measures are now being taken to reduce this proportion of dirt.

Health boards, especially in the great cities, are waking up to the terrible importance of milk contamination, and the more reputable milk purveyors themselves adopt the most stringent precautions. But that is only a beginning. Milk may be free from disease germs when sold, and yet become deadly to an infant by exposure or careless use. To prevent that disaster, general public education in infant feeding is one of the great tasks of modern hygiene.

Along that line a grand work for humanity is being done by many agencies, both public and private. In the cities laws have been passed requiring milk to be up to a certain standard of purity and food value; some require all milk to be pasteurized, delivered in sealed bottles, and obtained from inspected and certified sources. Social settlements and other private philanthropies supply certified or pasteurized milk to the poor at a minimum cost, with free ice in summer; visiting nurses go to the homes of the ignorant and careless to rescue infants from contaminated milk, served in filthy vessels or exposed to dust and flies; mothers' classes are instructed in the details of the sanitary feeding and care of their children; free sanitariums are supported by charitable women, and even crèches and babies' tents are established in the slums, with either of which working women can leave their children for scientific care and feeding during the day (or longer, if sickly).

Modern social science reaches out also to the farm whence comes the milk, where a degree of unsanitary ignorance and indifference is often found rivaling that of the city slum, and causing deadly epidemics in both city and country. Farmers are taught and required to keep sanitary stables and provender, clean cows, clean milk pails and milkers, cool storage, perfect protection from dust and flies from cow to customer, quick delivery, etc. Some large milk companies require dairymen and farmers to sign a contract pledging attention to all those details. It is the first ray from the rising sun of a grand New Era.

SANITARY WATER SUPPLY

Care for the water supply is another great problem of sanitation. That requisite of life, cleanliness, and health can easily become the carrier of the most deadly germs, especially of typhoid fever. Even "the old oaken bucket, the moss-covered bucket, which hung in the well," is eyed suspiciously by modern science. Is your well near an outhouse or barnyard; is it on the slope of a hill below the dwelling or a foul pond; is it wide open to the reception of dead or living animal matter; is it where you empty wash water or slops? Under any of these conditions there is always the possibility of an outbreak of typhoid fever in your family. Remember that clear water is not necessarily wholesome water, and that disease germs often find their way long distances in the most astonishing manner.

In great cities the water problem is still further complicated by a third great problem—sewage disposal. Since that involves great expense and complicated engineering work, it is a problem which the private citizen can help to solve only by doing his full duty in voting for the most honest and capable officials to be obtained. Fortunately, however, he can protect himself and his family from impure water if public officials fail to do it. It is a simple matter to boil or filter all drinking water, and it should always be done if there is the slightest suspicion of impurity.

PUBLIC DRINKING CUPS

One of the encouraging signs of the times is the war waged on public drinking cups of all kinds. In some states they have been abolished by law from railroad trains and stations, from stores, schools, and all other public places. Even churches have of their own accord displaced the old communion goblet with small individual cups of glass or metal.

Of course all those changes have caused some inconvenience and expense, but people are learning rapidly to adapt themselves to the situation and to carry their own drinking cups. However there are too many places to which that important reform has not yet penetrated, and one of them is the country school. Here is still to be found the open waterpail, a catch-all for the dust flying in the air; with the never-washed old dipper from which everyone drinks—sore mouths, sore eyes, decayed teeth, tuberculous lungs, and what not. Think of it! Do something about it!

But in reforms good judgment is quite as important as zeal, otherwise the reform

may defeat itself. A good example is the "bubbling cup" so recently installed in many cities and towns. Some of the cups are all right, but many of them are poor and are worse than none. The writer of this article has visited a town of 2,000 inhabitants where the citizens doubtless consider themselves very sanitary because they have three "bubbling cups" on the streets. As a matter of fact those three "sanitary" cups are as unsanitary as anything which could be devised, being of rough iron, incrustated with dirt and slime except where the lips of the children have rubbed off some scum from the iron.

"Bubbling cups" should not be installed unless they meet several conditions. They should be bulbs of smooth porcelain, so large that they cannot be taken into the mouth, and perforated by several holes. Through those holes the water should spurt up to a height of one inch at least. When economy of water is desirable the flow need not be continuous, but it may be shut off by an ordinary spring valve when not in use.

SEWAGE AND GARBAGE

The sanitary disposal of sewage and garbage is popularly supposed to be a city problem exclusively; but as a matter of fact the conditions along these lines are often worse in towns and in the country, partly from ignorance and indifference, partly from lack of the funds and the expert knowledge required for solving sanitary engineering problems. Even on the farm the outbuildings are too often unsanitary and located near the house or near and on a slope above the well. There is no excuse for such criminal carelessness where ground is plenty and cheap. Of course they should be at some distance from the well, with no possibility of drainage into it.

All that has been said above in regard to sewage and water applies with still greater force to the town. The wise citizen will not depend too much on official provision for the health of his family, but will investigate for himself; will search out the sources of the town's water supply and the outlets of its sewers, and will ascertain whether outlet pipes drain easily into the sewers and whether there is an outward flow in the latter. He will see to it that the house garbage is disposed of promptly. If the town will not remove it, he must bury or burn it himself.

The patriotic citizen, whether in country, town, or city, will not maintain on his own premises any nuisance which may serve as a breeding place for germs, flies, or mosquitoes. If his neighbors do, he will try to have the nuisance abated; failing that, he will protect himself by a thorough screening of every door and window, and by "swatting" promptly every fly and mosquito which comes in. Chief among the nuisances alluded to are the uncovered, unemptied garbage can or box, the manure pile, the stagnant pond, the loosely covered cistern, and the unsanitary privy. In all of those nuisances flies, mosquitoes, and disease germs breed zealously, and they flit joyously back and forth between the filth and the family food unless prevented by good screens.

Intelligent and careful people have the screen habit well fixed, which is a great forward step in the last quarter of a century; and yet how often is it possible even now to find homes swarming with insects distributing filth and disease!

The public needs persistent warning and instruction on the menace of the manure pile and of the stagnant pond. The first is the favorite breeding place of flies, the second of mosquitoes, for the reason that they are so seldom disturbed. All manure piles should be removed at least once a week to give the flies' eggs no time to hatch out, or else they should be treated thoroughly with strong germicides. Stagnant ponds should be drained off or given a thin coating of kerosene. Cisterns and water tanks of all kinds should be so well screened that no mosquito can lay her eggs there. To prove the wisdom and truth of all this precaution it is necessary only to point to what the United States government has accomplished in banishing flies and mosquitoes from the Isthmus of Panama, converting one of the pestholes of the world into a healthful dwelling place.

VENTILATION, HEAT, AND LIGHT

These are chiefly urban problems, but they also concern the town or country dweller, especially in the case of public buildings such as schools, churches, courts, and amusement halls. For the private dwelling, wherever it is, there is no better ventilating arrangement than the wide open fireplace with a roaring fire of logs. But not everyone can have a big fireplace; what is the next best thing?

That is a difficult question to answer, because so much depends on the house, the occupants, and the finances. Of course it is very easy to say "All you have to do is to secure a constant outgo of foul air and income of fresh, warm air, so that each occupant shall be sure of getting 400 cubic feet of pure air daily." But when it comes to a practical application of that theory to your own home, it is not so easy. The following hints will be found helpful.

In a house where the rooms are large, the occupants few, and the heating apparatus efficient, during very cold weather the automatic leaking in of outside air through the cracks of doors and window frames will usually furnish sufficient ventilation where the family sits. That statement presupposes that no exceptional sources of foul air are present, such as gas or oil stoves to eat up the oxygen in the air, leaky gas pipes, or smoky meerschaums and cigarettes. If the rooms are small or many persons are present, all inside doors should be thrown open so far as possible. If you wish to test whether the air in a room is getting foul, the simplest way is to step outdoors, fill your lungs with fresh air, and then step back quickly into the suspected room. If the odor which greets your nose is offensive you may be pretty sure that the room needs ventilating.

In weather which is cold without being bitter, and also in case of sickness, a good way to obtain ventilation without creating a dangerous draft is to knock together a simple frame of four sticks, nearly as long as the window sash is wide, and about one-half foot across. Then make a cheesecloth bag to fit, put the frame inside, and insert the contrivance in the open window frame, bringing the sash down to it. That may be done at top or bottom, and the bags can be washed when soiled. But avoid drafts when sitting; they are dangerous.

At some time during the day each room should be thrown open to the outside air even in the coldest weather, especially the bedrooms. For the latter there can be no cast-iron rule. Of course vigorous persons should sleep with the bedroom window partly open in all weathers, but others do it in bitter cold nights at great risk. They should have plenty of pure air, but the ventilation should be more indirect than a wide-open window in the same room. Many have been killed by following blindly the theories of "fresh air fiends."

No one should dress or undress in a freezing cold room. Because no member of the family wants to start the stove or furnace early on a cold morning, the whole house is freezing cold just at the time when warm rooms are most needed—before breakfast. Results are chills, colds, irritability, and family quarrels, bronchitis, pneumonia, consumption, death, and other "mysterious dispensations of Providence." Contrive some way of heating your dressing room, at least.

This naturally suggests the much mooted question of the cold water bath. Do not follow any crank's advice, but find out whether it agrees with you. If you can plunge into cold water, take a brisk rub-down, and then feel like jumping over the house, every nerve and muscle strung as tense as a piano wire—why, "it's good"—do it every day. Otherwise, don't.

Many have done themselves great injury because they imagined it their duty to chill themselves with an excess of cold water or cold air. Remember—a chill without reaction is *always* dangerous, whatever the cause. Such a chill means that your nerve force has received a knockdown blow and cannot get up.

Take your bath as cool as makes you feel better. If weak and altogether



1. An Open Air School. 2. A Fresh Air Room.

unstrung, a warm bath may be best, or even a hot one, but not too long continued. That should be followed by the cold sprinkle and vigorous rubbing if it makes you feel stronger; but be cautious about spraying cold water over the vital organs if your reaction is poor. The proof of the bath is in the bather.

SCHOOL VENTILATION

Now we come to a division of our subject which is so important and difficult as to call for separate and special treatment. The proper ventilation of other public buildings is serious and difficult enough, but at worst the audience suffers only a short time and it is composed mainly of adults.

But the exposure of tender and growing children to the habitual inhalation of disease-laden air several hours every day is a frightful thing. And the misery of it is that no thoroughly satisfactory plan has yet been devised, although thousands of teachers and trustees and hundreds of sanitary "experts" have pondered and discussed the problem. No end of patent devices have been advocated and tried. But no sooner does one expert persuade a board of education to fit the schools with an expensive apparatus which is guaranteed to withdraw foul air at the top of the schoolroom and send in warm fresh air at the bottom, than along comes another expert who maintains that such a theory is all wrong—that the carbon dioxide is all at the bottom of the room and should be taken out through holes in the floor.

That is one great problem of the city schools, with their rooms often occupied by sixty pupils, many of them untidy. Usually the country school teacher has no ventilation problem to add to her many duties in winter—the drafty school building affords plenty of fresh air and her only need is to keep the stove hot.

The latest attempt to solve the problem of heating and ventilation in the city schools cuts the Gordian knot by abolishing both. Enthusiastic advocates of the "open-air school" insist that in this they have found the best and only way of keeping children well and bright in school, and the scheme is being tried at this writing with apparent success.

Since the experiment is made with the sickliest pupils, especially the tuberculous ones, it is certainly a decisive test of the theory. It was started by private benevolence in Chicago in 1910, with the coöperation of the Board of Education. The "open air schoolroom" is on the roof. Essential features of the plan are careful inspection of the children, plenty of nourishing food, frequent short recesses, an outdoor nap after dinner, and heavy woolen clothing in cold weather, including hoods and mitts.

Any school can easily try the experiment with any room. All you have to do, if it is winter, is to wrap the children in heavy woollens, shut off the heat, and throw all the windows open. But be careful to carry out the full program. School trustees would take kindly to the innovation when it was pointed out that the saving in coal would more than pay for the extra clothing and food furnished to the children.

Teachers who do not care to try the open air school plan must do the best they can by various modifications of the usual plan. One good device is the insertion of cheesecloth ventilators in the windows at the top and bottom, as above described, provided your principal and trustees will allow it. Another device which is still simpler is to have frequent short recesses during which the windows are thrown open, but closed before the room is called to order. In Switzerland the law requires that the children be in the open air at least ten minutes every school hour. Still another good scheme is to get permission to open the schoolroom door when the air becomes perceptibly foul in spite of all possible ventilations. The halls of a school building contain a great reserve reservoir of comparatively pure warm air which is foolishly wasted in cold weather. In order to prevent pupils in the hall from attracting the attention of those in the room, it would be well to place a screen across the open door, in such a way that the teacher can see into the hall but the pupils cannot.

CAR VENTILATION AND HEATING

This phase of the subject interests all people who travel, especially the residents of large cities. For them it is a serious question, for most city workers are obliged to spend two hours daily in traveling to and from their work, and it makes a big difference in cold weather whether those two hours are to be spent in catching colds and pneumonia from drafts, or in the equally bad alternative of filling the lungs with foul air thick with every possible disease germ and nastiness. It is surprising what ingenuity is displayed in heating and ventilating public conveyances the wrong way. The usual way is to put a heater directly under each seat, throw all the ventilators in the roof wide open, and let the cold gale sweep down on the passengers. It would be better to take a hint from the hunter's wisdom. Both experience and tradition make him an expert in the art of keeping warm when resting, and *he always turns his feet to the fire*. The same principle holds good anywhere. When the body is sitting the feet are the first to suffer from cold and the last to get warm.

For a like reason the ventilation of cold cars should never be through the floor, as has been tried sometimes. Another good reason is that floor ventilation lets in quantities of dust. The ventilators should be in the roof, but there should be some kind of inside screen so that the intruding air may not strike the passengers directly. Moreover, all ventilators should be handled with good judgment, opened only so far as necessary and never on the windward side in cold weather. The public and its advisers oscillate from one extreme to the other—either hermetically sealed cars, or everything thrown wide open.

While speaking of public conveyances it may be noted with great satisfaction that this day and generation has seen the passing of one of the most unsanitary practices of sleeping-car porters. They have been forbidden to brush the clothes of passengers inside the car, throwing a cloud of dust into the face of everyone.

SCREENS AND SWEEPING

Returning now to the home and its sanitary care, there are a few suggestions to be made which seem almost too obvious, were it not that actual observation proves that they are usually neglected even by people supposed to be intelligent. For instance, it would seem axiomatic that the object of a screen is to screen. Yet how often do we see a house or a flat well screened with the exception of one door or window, which lets everything in which cares to come in! Or else the kitchen door screen has a big hole in it; or some door screen is not kept tightly closed; or it is a common practice for members of the family to hold the door screen open for conversational purposes! It is a great deal easier to keep flies and mosquitoes out than to kill them when once in. The danger and the filthiness of flies has been well advertised by the public press.

Of course every good housekeeper knows that flies do not care to enter a dark room, and the inference is almost too obvious to state. Keep your rooms as dark as possible in fly time; and if flies get in while the room is in use, get them out by darkening the room thoroughly except one bright crack where they can go out. If that does not do the business, pay the children a penny a dozen for all the flies they can kill inside the house. It will keep them, and the flies, properly employed.

Now about dust in the home. One of the best ways to keep it out is not to let it in—same as flies. Disease germs are often brought into the house in clothing, not to mention vermin acquired in public conveyances. That is utterly inexcusable, for the means of prevention are so obvious and simple. Every member of the family should shake and dust the outer clothing thoroughly before coming into the house after traveling. Incidentally the face and hands should be washed immediately on coming in and always before eating.

Presumably every housekeeper knows how to sweep and dust, and will be prop-

erly indignant at any suggestion to the contrary. And yet, if your sweeping fills the room with clouds of dust, will you not admit that something must be wrong? Your sweeping may not be done often enough, or your broom-stroke may be too vigorous. Of course the windows should always be open during sweeping. If you prefer, it is all right to buy or rent a "vacuum cleaner," not one of those which blow the dust in, but one which sucks it out. However, the vacuum cleaner is more of a novelty than a necessity. Unless the suction is very powerful it takes up little more than the surface dirt. For really taking the dust out of a carpet or rug there is nothing equal to the good old stick and elbow combination. Of course the stick should not be so heavy as to knock holes in the fabric; a rattan beater is better. Meantime, the carpet sweeper will be found useful.

One of the greatest sanitary reforms in the home has been the abolition of that ancient abomination, the tacked down carpet, with all its possibilities for disease-germs, and the substitution of rugs on a closely matched, hardwood, polished floor. Then house cleaning becomes play. The oiled mop with long handle takes care of the dust on the floor borders with no effort at all, the sweeper takes up the surface dirt easily from the rugs, and all rugs are taken outdoors to be beaten and swept once a week. (The latter will supply excellent physical open-air exercise for the male members of the family—which they usually need, especially in the city.)

Another common source of dust in the dwelling is the furnace or the stove. A little care in putting in coal and taking out ashes will go far toward mitigating that nuisance. Of course steam or hot-water heat is dustless; but if you cannot have that, at least to see to it that the furnace and its flues are cleaned thoroughly every fall, and especially the tin boxes at the end of the flues under the floor radiators. Otherwise they become perfect dustbins.

Of course you know how to dust—with a feather duster. That only distributes dust around the room. If you wish to get really rid of dust, use a damp cloth, shaking it frequently out of window or door. Finally close the windows and outer doors tight, and in hot weather pull the shades down and keep the light out as much as possible. Do this early in the morning while the air is still cool and you will find that such a plan keeps the house much more comfortable in summer than throwing it open all day, as many do. But do what you will, the dust will filter in either winter or summer. Of course all cracks, corners, and picture rails are highly unsanitary. In the best hospitals they are not allowed, not even at the ceiling; every angle must be a curved angle. The reason is evident and excellent, but in the ordinary dwelling such sanitary perfection is out of the question. Corners, cracks, and rails are everywhere. What are you going to do about it?

Do the best you can under the circumstances. If the floors yawn with cracks, have them filled with putty until you can save money enough to have a well matched floor laid over the old one. Particularly in the kitchen and pantry, and wherever food is stored, all crevices should be filled and kept filled with putty or cement to discourage vermin. But the surest discouragement is to leave nothing for them to eat; vermin can always be starved out. For corners of rooms and staircases the metal corners on sale are excellent, provided they are made to fit perfectly tight.

FOODS

To urge the importance of good food, good cooking, and sanitary care of food seems absurd, and yet that is just where the domestic economy of so many families breaks down, even among the well-to-do. The subject is large enough to fill a book by itself, so this treatment of it must be confined to a few sanitary and hygienic suggestions.

In the first place, the family buyer should know foods and know prices. If you do not know and yet must do the buying, seek advice from someone who does

know and learn as fast as possible from experience. Most American families buy poor food values at double prices. As to just what foods should be bought, no general rule can be laid down, for the requirements of each family differ from every other. Much depends upon the age and health of members of the family, their occupations, the time of year, and the family finances. One thing, however, it is safe to say of all—American families take altogether too much stimulant, especially coffee. It ought not to be necessary to say that neither coffee nor other stimulants should be taken at all by young people, especially children, and should be used by adults in moderation.

On no account, for cheapness or any other reason, buy food of doubtful quality; only the best is good enough to put into your stomach. Poor clothes on your back won't hurt, but ill-nourished muscles, nerves, and brain simply spell slow suicide. It is easy to obtain from any public library ample literature on the subject of the comparative food values of proteids, fats, and carbohydrates, and their adaptability to various conditions. But good quality does not necessarily mean high price, as many imagine. People who do not know judge value by price, which the butcher and grocer quickly discern and act accordingly. Do not order by telephone unless you are willing to be cheated in price, quality, measure, and weight; run no account for longer than a week, and watch that sharply. It is far better to learn to market wisely and pay cash, as grandmother did. Oh, yes, it takes trouble—so does everything in this world worth having.

This is the age of the tin can, so take this advice—never buy or use a swelled can or a can having two holes soldered; it is canned death. Be especially careful of canned fish or oysters. When once a can is opened, empty all of the contents which is not to be used immediately into some clean dish or jar which can be sealed dirt-tight at least. Keep in a cool place and use as soon as possible.

Be very careful in choosing your milk supply, and especially if you have children. Look up your milk company personally. On no account trust to luck in so important a matter. Ascertain where the milk is obtained and where it is bottled, and inspect the latter at least. It is a pretty safe rule that a company which runs an unsanitary bottling place will be equally careless in getting milk from unsanitary cows in unsanitary stables. It is also pretty safe to say that any milk company which is "on the square" will welcome your inspection. Is it necessary to caution anyone that milk should always be kept in clean, dust-tight vessels and in a cool place? Even when standing on the kitchen table to be used in cookery it should be kept covered. The same is true of butter and meat. Germs of all kinds multiply in milk astonishingly.

A word about the ice-box or refrigerator. Very soon it becomes soiled and even filthy if used by careless servants, and thus it may become a nesting place for bacteria. At least once a week it should receive a thorough scrubbing inside with hot water and then be allowed to air an hour.

If you cannot make your own bread, pies, and cake, be careful where you buy them. The revelations made by health inspectors of the unspeakably filthy conditions of many bakeries are sickening. Of course it is not generally possible to inspect a bakery thoroughly, although some of the best welcome inspection; but here, just as it is in the case of milk supply, a great deal may be shrewdly surmised. If the public salesroom of a bakery is dirty, the attendants ditto, the food freely exposed to flies and dirt, it is a safe guess that the kitchen is tenfold worse. Especially avoid food cooked in a cellar. There are clean bake shops if you will take the trouble to look for them. Having found one, get acquainted with the manager and let him or her know that you appreciate that feature. Really bakers need encouragement in sanitary management when so few seem to care what they put into their mouths.

So far as possible avoid buying sticky cakes to which every particle of the dirt with which the air is filled must stick as soon as it touches them. If we could see

all that the fly sees we would be nauseated. By the same token, top-crust pies are to be preferred to open ones and hard candies to soft. Bought bread, pies, and cake should be well scraped and brushed before eating and the tags cut out. Eternal vigilance is the price of sanitation. Some day we shall attain such a height of sanitary virtue that there will be a severe legal penalty for every food purveyor who permits any unsanitary exposure of food, especially to dirt, insects, vermin, or sewer gas. In some cities men have actually been arrested and fined for spitting on the sidewalk.

HYGIENE

Hygiene is a department of sanitation, or sanitation in its more personal and physiologic aspects. The dividing line between the two cannot be defined very sharply, since they overlap at many points. It takes a lifetime to learn how to live and the last thing people seem to care for is to care for themselves. No attempt will be made to cover the whole subject—it is too large; and besides there is an abundance of excellent literature on hygiene within easy reach of everyone. Neither shall we discuss moot questions, such as the healthfulness of tobacco, beer and whiskey, corsets, hobble skirts, or fudge.

It will be taken for granted that everyone who reads this knows that he should live regularly and simply; eat nutritious food slowly and at regular hours; go to bed early and get up early; breathe through his nose; be virtuous and happy. All that and much more he and she have been told a thousand times and it is no use saying it again.

Also it is useless to warn against the microbes of kissing; you are bound to do it anyhow and take your chances. The same may be said of licking your fingers in counting bankbills, or in turning the leaves of a book or in examining documents; of carrying carfare in your mouth; of rubbing dirty hands over your face and poking germ-infested fingers into your mouth and eyes, and of wearing tight clothes and loose hats, high heels and low shoes, and so on.

FADS IN HYGIENE

But it may be worth while to say a few words on the subject of hygienic clothing. Persons of strong vitality can wear nearly the same weight of clothing the year round, but their example is no guide for others, especially in the middle and northern states. A great deal of nonsense has been talked about "toughening yourself," and some have been injured seriously in consequence. They have been shamed or deluded into wearing thin clothing when they should have worn thick, and into exposing themselves to various strains which they were not fitted to stand. What will toughen one will kill another.

Some hygienic pragmatism is a good thing. Which means, in other words, that the only test of any hygienic theory, so far as you are concerned, is whether it is good for you. That it may be excellent for someone else is of no consequence. Therefore, wear what agrees best with your health. But be honest with yourself. Don't pretend that your cold did not come from wearing summer clothing in winter weather just because you "hate" thick clothing, when you know perfectly well that such was the real cause. This suggests the subject of sneezing. Except when due to snuff, dust, pepper, or other irritants, sneezing is like pain in being one of nature's signals, which it is well to heed.

A great deal of the aversion to warm clothing is due to the popular notion that warm underclothing necessarily means woollens, and "they scratch so." Others are frightened by the high price of woollen, for in these days there is no real all wool underclothing of any thickness on the market except at fabulous prices. Even then

you must be an expert on woollens, for manufacturers have learned to fix up cotton, either straight or mixed, to appear so exactly like all wool that you run great risk of getting little or none of the latter for your big expenditure.

Under these circumstances people who must count their dollars have been driven to try cotton underclothing and have found, to their surprise and delight, that heavy, fleece-lined cotton underclothing is as warm as any so-called woolen (which costs three times as much). Besides, it does not scratch. Of course it is bulky, but so is any warm underclothing.

THE CARE OF THE HAIR

The hair is so generally neglected that it seems necessary to say something on that specially personal subject. All of us carry about on our heads an ideal dust-catcher and a nesting-place for germs. This we should never forget. The least that everyone ought to do for comfort and decency is to give the hair and beard a vigorous combing and brushing every day. The comb should not be used so violently as to excoriate the scalp. The main reliance should be on vigorous scrubbing with two very stiff brushes. If that is done faithfully, supplemented by a monthly shampoo, any microbes which you may have been entertaining will get discouraged and move to quieter quarters. Incidentally you will be relieved of that common plague, dandruff, and your hair will grow vigorously and stay by you in old age. But beware of all hair-growers and dandruff-cures. There is nothing better than brushing and pure white soap and water. Use no pomatum or grease; in most cases the hair, if treated right, will supply its own ointment.

EXERCISE

Every day some exercise should be taken which makes the blood move faster, which forces the heart to greater exertion, and which fills the lungs to their utmost capacity with life-giving fresh air. Running is an ideal exercise. The pace need not be rapid. If the individual can run but a city block it will prove beneficial. If he can cover a mile at a moderate pace, so much the better. The average individual should be able to run one mile and to walk five miles without too great fatigue. Boxing, wrestling, playing ball or tennis, and swimming are also splendid forms of exercise.

SOME SUGGESTED EXERCISES

TO STRENGTHEN THE TRUNK MUSCLES AND THE VITAL ORGANS

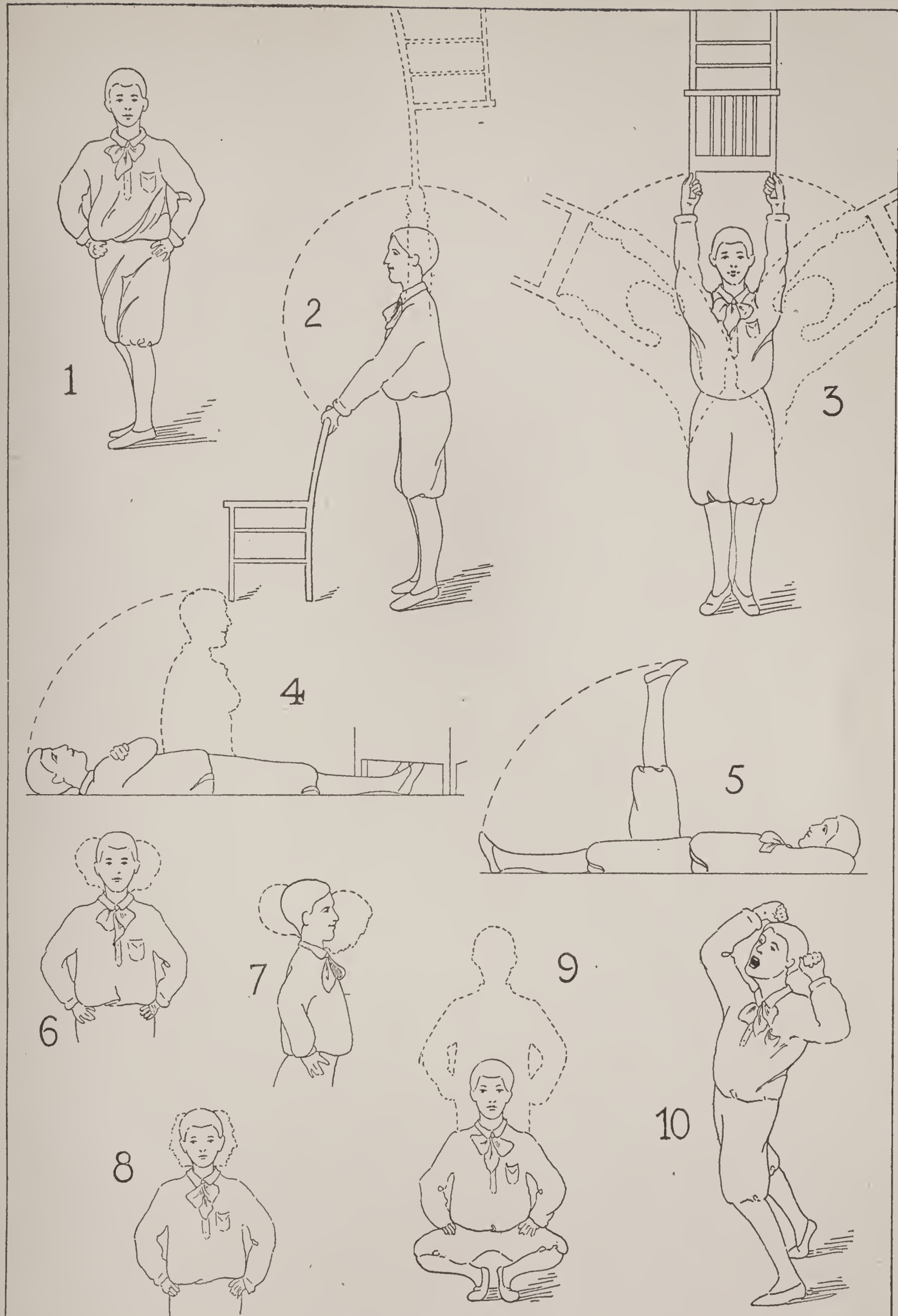
These exercises should be taken in a well-ventilated room. Loose clothing sufficient for warmth should be worn. The proper time to exercise is just before retiring or on arising in the morning. Omit the exercises one day in the week and stop exercising for any number of days if the movements become tiresome. Put the mind into the exercises, concentrating the attention on the parts of the body brought into play. Get fun out of it.

Fig. 1. Stand erect, hands on hips, weight of body thrown slightly forward so that weight is on balls of feet. (This is the correct position at all times.) Twist upper part of body around to the right as far as possible, bending at the waist. Repeat ten times. Then to the left and repeat ten times.

Fig. 2. Grasp a chair by the back. Lift the chair over the head and as far back as possible. Then bring the chair forward over the head, restoring it to its original position. A very light chair should be used by children and weak adults.

Fig. 3. Hold the chair at arm's length straight over the head, grasping it by the back. Now bend far to the right. Turn and bend to the left. Repeat until slightly fatigued. Note how this exercise calls into play the great trunk muscles.

Fig. 4. Lie flat on the back, arms folded on breast and feet under the edge of



Home Exercises.

the bed or some other firm object. Rise to sitting posture. Repeat until slightly fatigued.

Fig. 5. Lie on the floor or bed with hands under back of the head. Raise right leg to perpendicular position. Lower right leg and raise left. Continue alternating until slightly tired. Then rest. Now raise both legs together from the floor to vertical position. Continue until tired. This exercise is a splendid one for the abdominal muscles.

Fig. 6. To strengthen and beautify the neck, tighten the neck muscles and move the head toward the right shoulder. Then move toward the left shoulder. Stop as soon as tired. Relax the muscles and rest.

Fig. 7. Same as Fig. 6 except that the head is moved forward and back with muscles at tension.

Fig. 8. With neck muscles rigid, move head around in a circle to the right and then to the left.

Fig. 9. Beginning with erect posture, hands on hips, rise on toes and then lower the trunk to a squatting position. Rise with hands still on hips and repeat.

Fig. 10. Fill lungs, beginning the breathing process with the abdominal muscles. With the lungs inflated, stretch and yawn, endeavoring to contract every muscle in the body from the feet up. This is the way animals take physical culture exercise.

All of these exercises need not be taken at one time. They are offered as suggestions from which selection may be made. Exercise should be varied. Ten minutes at a time is sufficient.

CHILD WELFARE

In the eye of the New Era, as already stated, the greatest thing in the world is the individual, but the most important individual in the world is the child. In that idea social science and religion join hands. For not only is the child the father of the man, he *is* man in that plastic period when we can mold him into any form we choose, when we can plant in him the seeds of life or death.

In 1910 a Child Welfare Exhibit was opened in New York City in the Seventh Regiment Armory at a cost of \$100,000. In it were displayed the results of three years' work by hundreds of workers among city children, and 250,000 people profited by the opportunity to learn many things which they did not know before.

In the following year, through the generosity of a Chicago woman, the same exhibit, greatly enlarged and improved, was brought to Chicago and installed in the Coliseum at an additional expense of \$50,000.

The moral and economic value of such exhibits cannot be overestimated. On the one hand they open the eyes of the prosperous to their social responsibilities and dangers; on the other hand they help the submerged to catch some glimpse of hygienic truth and sanitary living—they make for healthier, happier childhood and fewer criminals. Although they exhibit urban conditions and problems, in the main the lessons they teach are of universal application.

OPHTHALMIA OF THE NEW BORN

It has been well said that the improvement of a child should begin with the reformation of its grandparents, but the best we can do now is to reform the grandmothers and grandfathers of the generations which are to come. There is no better place to begin than at the beginning, when the new-born infant first opens its eyes to the light.

But for thousands of the new-born that first opening is the last; their opening eyes close at once in unending night, through the criminal ignorance or cruel carelessness of those who should care for them. And worst of all, it is so utterly unnecessary, so easily preventable. Just a little bathing of the infant's eyes, the ap-



1. A City Playground.

2. A Pole-climbing Contest.

plication of four drops of a one per cent solution of nitrate of silver, and 25,000 persons in the United States who now grope their way through life might be rejoicing in the light and beauty of the world. What cruelty, what wicked waste of economic value! One of the grandest services which visiting nurses and physicians are performing is to teach mothers, especially the poor and ignorant, to use that simple preventive. But it is only a beginning, and meanwhile thousands of helpless little ones are needlessly doomed to darkness and to dependence for life.

Other grand social services, already mentioned, which are a part of the child welfare movement, are the sanitary milk stations, crèches, babies' tents, mothers' classes in infant care and feeding, open-air schools, etc. At the present writing there are in New York City ten and in or near Chicago five "infant welfare stations," to which ailing infants may be brought and where they receive the best medical attention free of charge, with the best sanitary appliances and care.*

SOCIAL SETTLEMENTS AND RESPONSIBILITY

Not even an attempt can be made here to do justice to the sanitary and hygienic uplift which has been started in all cities of any size by social settlements and other private philanthropies. The reader must be referred to the books and magazines devoted to that subject. There you may read about the "little mothers' classes" where the older girls are taught how to care properly for their brothers and sisters in mother's absence. Here is described the new hygienic dentistry and surgery—new because it is furnished freely and compulsorily to all public school children. The topics of vital and absorbing interest are almost countless.

At last society is beginning to wake up to its social responsibilities and opportunities. The right of every child to at least a decent start in the life-race is recognized. It is perceived that foul food, foul teeth, foul clothing, and foul air are almost fatal handicaps, and that it is both the duty and the interest of the state to replace those injurious conditions with sanitary ones, even by force if necessary.

THE SLUM TREATMENT

The most unhygienic factor in the poor child's degradation is his "home." What a horrible travesty a filthy, sunless, airless tenement room is upon a real home can be realized faintly by inspecting the exhibits above mentioned. There were displayed cardboard models of city blocks, with figures showing density of population and the unhealthy and indecent crowding of men, women, girls, and children into single rooms and dark cellars, with photographs of actual conditions and persons. How can any good thing come forth from such a human cesspool?

As the slum boy grows away from his mother's arms—supposing he has ever known them save in wrath—he graduates into the unsanitary environment of the street and alley. His sister is likely to be engrossed with domestic cares equally unsanitary. At once the boy becomes a member of some alley gang whose playground is amid all the indescribable filth of the foulest parts of a city. But what else can the child of the poor do?

That question is being answered—very inadequately as yet—by many public and private efforts. Most municipalities are now providing public playgrounds, small parks, free swimming pools and bathing beaches, summer schools, children's reading-rooms, etc., etc. Then there are fresh-air sanatoria, free garden patches, summer camps, and vacation cottages and farms conducted and financed by benevolent individuals, clubs, newspapers, and magazines.

* Among these at Chicago are the Jackson Park Sanitarium, the Daily News Home, the Daily Tribune Home, etc.

PLAYS AND GAMES

Among recent educational tendencies none is more striking or interesting than the overwhelming emphasis on play. From the dull school of fifty years ago, with its long study hours and few recess periods, we have suddenly swung over to a system that not only recognizes but encourages and directs the child's play instinct. It even seeks to give him a large part of his training through it. "Man is whole only when he plays," says an old proverb, and this truth is the keynote of the new education.

The same principle was at the basis of Greek training; and one of the inexplicable questions in connection with our educational system is that, in spite of our desire to produce fully educated men according to the Greek standard, we should have been so long in recognizing and adopting the Greek method. The great



educators of all time have been convinced that play has a large place as an educational factor. Says Froebel, "The plays of the child contain the germ of the whole life that is to follow, for man develops and manifests himself in play and in it reveals the noblest aptitude and the deepest elements of his being." Froebel's chief function as an educator was to systematize undirected and aimless play, so that even what the child does spontaneously and for pure fun may have an educational bearing.

It is the sudden acceptance of the belief that this is possible which explains the public playgrounds, recreation centers, game evenings, and in general all the results that have come from the thousands of dollars that have been invested in the play project, especially in the large cities. The play idea is spreading even to small towns and remote districts. Old games are being revived, old folk dances are coming into fashion again, and everywhere people are learning that full, free play influences

character by making the body more erect, more graceful and free, more definite and well poised in its action. It gives the needed relief to stored up energies, it teaches the value of promptness, the need of immediate judgment to meet constantly changing conditions, the necessity of subordinating self to the interest of the whole. The whole nature is recreated and enlarged by the joy of self-expression.

Play is the child's real work. Some educators hesitate to admit the wisdom of an educational system which makes play an important element in a child's development, fearing that the love of play may prevent the love of work afterward. But play is the real work of childhood, and the love of play in the child should afterward become the love of work in the man. Every characteristic of excellence in playing—quickness, alertness, enthusiasm, persistence, energy, independence—is also a characteristic of a good worker at maturity.

The classified games given below can be little more than suggestive. The book-list gives sources of many more. Children are generally glad to suggest their own games and, whenever possible, they should have their choice. Just what shall be played depends partly on available space and partly on the end desired, whether it be to rouse and quicken, or to concentrate and be still. Any teacher will do well to write to the Playground Committee of one of the larger cities, such as New York, Chicago, Philadelphia, Rochester, or other places where the play movement has gained headway. Their suggestions and devices are generally to be had for the asking, and are invaluable to anyone who has had but little experience in organizing and directing play groups.

BALL GAMES

LONG BALL. Any number of players. Catcher and pitcher take the usual positions. Others scatter indifferently. The batter endeavors to bat the ball. All hits are fair. When a batter hits the ball or has had three strikes he runs to "long base," about fifty feet from the home plate. A batter is out if hit by a thrown ball or tagged between bases. Any number of runners may be on long base at a time. Every runner getting home scores for his side. The side at bat is out when three men are out or when there is no one left "home" to bat.

ONE OLD CAT. One Old Cat is a very simple ball game. It is played with a soft ball and a small bat so that little space is needed. There is one catcher, one batter, and one pitcher. All the rest are fielders. There is no base running. The batter is out on third strike. Then the catcher becomes batter, the pitcher catcher, and so on.

TWO OLD CAT has two bases and two batters. Batters are put out in the usual way. When a batter is out the players move up as in One Old Cat.

VOLLEY BALL. Two sides of any number may play. The court should be about fifty by twenty feet. A net (cheesecloth) is stretched across the middle. A player serves the ball from the rear line over the net and into the opponent's field. The ball must be returned before it strikes the ground. Batting upward only with the palm of the hand is permitted. A failure to return the ball counts one for the opposite side. Faulty service counts one for the side receiving. If a player touches the net, his side loses one point. The side first scoring the number of points agreed upon wins the game.

Among ball games should also, of course, be mentioned the standard Foot Ball and Baseball with their variations, such as Socker Foot Ball, Rugby Foot Ball, and Indoor Baseball and Cricket. All kinds of ball games are excellent and children soon introduce endless variations. Encourage all the children, girls as well as boys, to play.

RUNNING GAMES

Everybody knows many of the old running games. Children are especially fond of them for they give a vent for a stored up energy and a sense of exhilaration that

no other games afford. In this class belong all sorts of races, such as bean bag and clothespin races, hoop race, flag race, "Drop the Handkerchief," "Puss in the Corner," "Follow the Leader," "Fox and Geese," and countless others. All kinds of tag can be played indoors, though playing outdoors is always better.

COME WITH ME is something like "Drop the Handkerchief." The children stand in a circle. One runs around the outside of the circle, and slaps somebody on the back. The one slapped runs in the opposite direction. When the two meet they clasp hands, swing around, and race for the vacant place. The game may be varied by having the children bow when they meet and say "How Do You Do" three times.

CAT AND MOUSE is a good game for a small yard. The children form a circle, holding hands. The mouse is inside the circle and the cat outside. The cat tries to catch the mouse. The children let the mouse run in or out, but they try to hinder the cat by holding their arms in front of her. When the mouse is caught she has to be cat and another mouse is chosen.

BOILER BURST is another good game. All gather around the catcher who tells a simple story, finally introducing the words "the boiler burst." At these words all run to a given goal. Whoever is caught before reaching the goal must be the next catcher.

FLAG RACE. The children stand in line, each row facing a child who marks the end of the course. Each child has a flag, and at a given signal the children standing at the head of the lines run and place their flags in the hand of the child at the end of the course, returning as quickly as possible to touch the child standing next in line, which meantime advances one so as to bring the child at the head of the line always at the same distance from the goal. The line which first deposits all its flags in the hand of the child who is to receive them wins.

DUCK ON THE ROCK. Get a soap-box for the rock and bean bags for the ducks. The one who is "it" places his duck on the rock. The others throw their bags from a given line in order to knock the catcher's duck off the rock. The catcher tries to tag any one who picks up his duck to run back for another throw. If he succeeds before the runner crosses the line the one tagged becomes "it," but the catcher must always replace his duck on the rock if it is knocked off before he can tag anyone.

POTATO RACE can be run anywhere. Line up the children in columns, the leader toeing a line which marks the beginning of the course. At the other end of the course place a box or draw a circle upon the ground. In front of each line of runners place several piles of potatoes at convenient distances apart, each pile containing as many potatoes as there are runners in each line. At the signal the head runner in each line starts to put a potato from each pile in the box. Then he returns and touches the one who is now at the head of the line, thus releasing him. This continues until all have run. The line finishing first wins the race.

THREE DEEP is an excellent game. One player is tagger and another is runner. The older players form two deep in concentric circles. The tagger chases the runner around in and out of the circle. When the runner is hard pressed he takes a position in front of one of the other players, thus making a column three deep. Thereupon the outer player in that column becomes the runner. When a runner is tagged he becomes tagger and the tagger runner.

Among "Track and Field Events" are the Sixty Yard Dash, the Relay Race, the Standing Broad Jump, the Running High Jump, the Running Broad Jump, etc. When space is limited races may be extemporized in various ways, as jumping races, hopping races, three-legged races, and the like. All of these afford excellent opportunity to begin class athletics. The object of class or group athletics is to get everybody to participate—the good, the bad, and the indifferent runners and jumpers alike. In these contests that class wins whose average per pupil is best. Instead of putting the best runners of one class against the best of another, all or nearly all must join, and the victory goes to the group that has the best average.

Often running games can be accompanied by singing. Nearly all children know "London Bridge," "Farmer in the Dell," "Round and Round," "The Village," and "I Put My Right Hand In." Lately there has been an interesting revival of folk dancing. Many of these dances are accompanied by songs which the dancers themselves sing. Inasmuch as both the songs and the dances are representative of the different peoples from whom they have come, such exercises have a real educational value, and if systematically conducted the children enjoy them immensely. The playgrounds committees of nearly all large cities have directions in printed form for many of these dances, and often they may be had merely for the asking. In this country there are as yet not many special publications on this subject. Several excellent ones are published in London.

CIRCLE GAMES

The following games are especially well adapted for indoors. There are often times when, on account of the inclement weather, the children cannot go out to play. At such times the teacher will do well to see that regularly organized games are carried on inside, for if the children are not occupied during noontimes and recesses they will be either listless or mischievous when school time comes.

CIRCLE BALL. Players form a circle. One of them throws a ball at another player, who catches it and throws it at someone else in the ring. It should be thrown in rapid succession and unexpectedly. Variations may be made by bouncing the ball, clapping the hands before catching it or the person who fails to catch it must sit down.

PASS BALL. Players form a ring with the feet placed sufficiently far apart for the ball to roll between them and each foot touching a neighbor's foot, so that the ball cannot easily pass between players. One stands in the center and tries to roll the ball between the feet of a player, who rolls it back with his hands. If it passes between his feet or he moves his feet so that it cannot pass, he takes the place of the player in the center.

BELLED CAT. Hang a bell around the neck of one player, calling him the cat, and let the rest form a ring, inside of which two children, blindfolded, may chase the cat. When the cat is caught the catcher becomes blindfolded in his place.

HAVE YOU SEEN MY SHEEP? One player walks around the outside of the circle. As he tags someone he says, "Have you seen my sheep?" The one touched replies, "How was he dressed?" The one who is "it" then describes the dress of someone in the circle who, as soon as he recognizes himself, must run and try to pass around the circle and reach his own place before the one who is "it" can tag him. If he is tagged, he is "it."

FRUIT BASKET. Players sit in a circle. One stands in the center and, after giving each child the name of a fruit, he tells a story bringing in these names. All rise and turn whenever the words "fruit basket" are heard, and each player turns whenever he hears his own name. The story ends with the words "The fruit basket upset." Immediately all the players change places and the one in the center tries to secure a chair. Whoever is left standing tells the next story.

The children themselves can suggest many more circle games. Among the familiar ones are "Drop the Handkerchief," "Pussy Wants a Corner," and "Spin the Platter."

QUIET GAMES

Often it is desirable to have the children play games in their seats or in the aisles. And though these games give little or no physical exercise they have their own value in the training in attention and concentration which they give. And often, indeed, when children are dull and listless, games like these will rouse and stimulate when games involving physical exercise only leave them exhausted.

DUCKS FLY. Players stand in the aisles. The one who is "it" faces the lines

and says, "Ducks fly," and raises his arms to imitate flying. The others imitate him as long as the animals he mentions can really fly. If he names an animal that cannot and says, for instance, "Rabbits fly," the child who makes a movement must be "it" or pay a forfeit.

GRAND MUFTI. The principle here is the same as in the first game. The teacher stands in front of the lines and says, "Thus says Grand Mufti." As he does so he makes some movement which all the players must imitate. If he says "So says Grand Mufti," no one must move. Whoever moves must sit down.

Quiet games often afford excellent opportunity for correlating and testing the children's knowledge. For instance, pass around twenty or thirty of the half-cent size Perry pictures of well known men. Have the names covered and see how many children can name them correctly. A game like this can be played several times; and to have the children know such men as Gladstone, Hawthorne, Napoleon, or Franklin by their pictures is worth while. A game for testing knowledge of geography may be played in much the same way. Write, for instance, the word "Cleveland" on the blackboard and see how many cities beginning with *C* and containing at least one other letter of the word can be written in three minutes.

Another good name is "Buzz." The child in front says, "One"; the next "Two," and so on until seven, when the child must say "Buzz." Thereafter any child whose turn it is to count any number containing seven or a multiple of it must say "Buzz" or drop out of the game. For instance, thirty-seven and twenty-one would be called "Buzz," the one containing the figure seven and the other being a multiple of seven. When a child has dropped out, the next child begins with "One" again.

Many good bean bag games can be played in the seats. Indeed bean bags are such inexpensive and useful apparatuses that no school should be without them. Let every child have his own bag and a place to keep it from which he may remove it only with the teacher's permission except for a regular game. Following are a few bean bag games:

BEAN BAGS IN A CIRCLE. The players stand several feet apart in a circle. The bags are distributed to players at equal distances apart. Each player holding a bag turns and tosses it to his neighbor on the right and immediately turns to receive the one coming from the left. All the bags should be in motion at once. The liveliest game can be played when the number of bags is only one less than the number of players. The game may be complicated by having the bags of various weights and sizes.

END BEAN BAG. Players stand in two parallel lines, A and B, about ten feet apart. At a given signal the first player in line A steps half way across to line B, and tosses the bag to the first player. The bag is passed from one to another down the line B to the end, when the last player moves half way across to line A and tosses the bag to the last child in A, and steps up beside him. Thus the games goes on, line A constantly moving up one and B down one until the first player in A becomes the first player in B. The game continues till the first player in A has moved down line B and back up in line A. The section which first accomplishes this wins the game.

CENTER BASE. The players form a ring, one player standing in the center and holding the bean bag. He tosses it at some player, who must catch it, place it in the center, and at once chase the one who threw. The one who threw the bag runs out of the circle and tries to return and touch the bag before he is tagged. If he is tagged, he is out of the game and the other player throws. If he is not tagged, he throws again.

BIOGRAPHY

The last two decades have seen an increasing emphasis on the study of biography. The claims for the subject have even been pushed so far that a class of historians has adopted the Great Man Theory, i. e., the theory that the history of a nation is nothing more than the history of great men, that heroes make occasions, and that national events are to be explained in terms of personality. This may be saying too much, but at least it is true that to generate enthusiasm in great exploits, to incite admiration for heroic deeds, and to throw light on the past or explain the present nothing is equal to the life-stories of great men. Moreover, though we have laid away the two-volume novel and taken up the short story, we are not content with the same condensed treatment of biography. There is a growing demand, not only on the part of scholars, but among general readers for complete life-histories, personal memoirs, letters, criticisms, estimates—anything that will present the subject in a full-sized portrait.

The teaching of biography has kept abreast of the new interest. It is made the basis of history, the background of literature, and often the entire subject-matter of assigned reading. Yet poorer work is done with it than with almost any other subject—partly because the teacher has no point in mind and hence fails to make her own or the children's contributions tend to an end, partly because biography is often studied without relation to anything larger, and often because the teacher herself is not thoroughly informed. For the last there is, of course, only one remedy: read all around the subject before you present it to the class; have a fund of anecdotes, reminiscences, personal incidents, ready to tell the class; but keep in mind always the larger purpose for which the study is made. This will depend somewhat upon the nature of the subject, the relation which it is to sustain to other studies, and the use that is to be made of it afterward. In any case a definite outline is indispensable—something that will present the lesson in a graphic, vivid way. Let the outline be short, make it focus on the essential points, and adopt now and then a new form. The following plans illustrate concretely a variety of ways in which the main types of biographical study may be presented.

I. ANY WRITER

(In this case a specific subject is not presented inasmuch as the object of study would vary so largely with the nature of the author's work that no one outline would cover even a majority of cases.)

A. BIOGRAPHY.

a. Parents—Education—Early Training.

Influence of these on the author's later life and work. (In the study of literary men the merely biographical facts should, of course, be subordinated to the facts relating to his works. For instance, the fact that at any early age an author moved into a new locality is significant chiefly if the removal put him among influences of which his work bears signs.)

b. Marriage and Home Life.

As before, what relation does this bear to the author's literary life? Was his home life an inspiration or did he achieve in spite of it? (It is easy here to tell merely a lot of irrelevant anecdotes. Hold to the outline.)

c. Positions.

Did the author connect himself with the life of his times? Was he interested in politics, society, reform, etc.? Does he refer to these interests in his writings? (It is interesting to note how authors vary in this respect.)

d. Work.

(1). Prose—essay, novel, history, etc.

(2). Poetry—drama, lyric, epic, etc.

e. Rank and Final Estimate.

(1). The opinion of others as gathered from criticisms and reviews.

(2). Your own opinion based on personal study.

B. METHODS OF STUDY.

a. The Chronological Order.

List the author's works in order of publication, or production. What was his chief theme at first? What later? Do you note any increase in the range of his ideas, in the development of his technique? Any change in his outlook on life, in his attitude toward his own work, in his relation to his own time? (Usually, except with mature students, this is not a good method of study. It requires more time than can be given to one author and calls for discussions which only the teacher can handle.)

b. The Study of an Author as an Exponent of an Idea or Principle.

Now and then an author gives his whole life to furthering with his pen the interests of a certain cause. Harriet Beecher Stowe, for instance, is best known for her "Uncle Tom's Cabin." What is her attitude toward slavery? How did she get her facts? How does she treat them? Was she right in her attitude toward the South? Will her work endure? Why not?

Sometimes a writer stands for a principle in literary art. W. D. Howells, for instance, is a realist. Show that his books bear out his belief that common people and common events make good story material.

c. As Illustrative of his Life and Times.

Often the only record we have of a period is what was written at that time. The Old Norse Sagas, the Medieval Drama, the records of colonial days, are all full of touches that reveal the life of the times. Nearer our own time, much of Whittier's poetry is interesting chiefly because of its relation to the subject that was everywhere uppermost when he wrote—the Abolition of Slavery. This point of view alone often makes a good basis for study.

d. As an Example of a Large Literary Class or Type.

Many of Robert Louis Stevenson's writings, for instance, are best studied, as examples of the informal essay type. Part of Scott's work is interesting as an instance of one form of the historical novel. Lowell is pre-eminently a critic, and Bernard Shaw a dramatist. Often the development of a special form or method of treatment can best be traced in the works of the authors who used it rather than in definitions or in what has been written about it.

II. THE BIOGRAPHY OF A MAN OF AFFAIRS

BENJAMIN FRANKLIN

As the years go by there is a tendency, especially on the part of young people, to regard men like Benjamin Franklin as old-fashioned and out of date. "Good enough in their day," we say, "but how would they figure in this day of bustle and enlightenment?" It is well, therefore, now and then to recall the multitudinous

activities of men who, in spite of obscure birth and unfavorable environment, rose by sheer industry to the foremost rank in the nation. The following outline has been made with the purpose of presenting the versatility of Franklin's genius and the variety of his pursuits:



Born in Boston, 1706.

Taught when a boy to make candles.

Read everything he could get and re-read favorite books often.

Learned composition by imitating great authors, especially Addison.

Apprenticed to his brother, a printer.

Became an accurate, prompt, and capable printer —(owned and published *Pennsylvania Gazette*, the most influential paper in the colonies).

Began *Poor Richard's Almanac*, 1732.

Clerk of Pennsylvania Assembly.

Deputy Postmaster of the Colonies.

Twice sent to England to deal with Penn heirs.

Member of Continental Congress.

Member of committee to draw up Declaration of Independence.

Influenced France to aid the Colonies.

Helped draw up Treaty of Peace, 1783.

President of Executive Council of Pennsylvania.

Delegate to Constitutional Convention 1787.

Signer of Declaration of Independence.

Discoverer of identity of lightning and electricity.

Invented the lightning rod.

Member of Royal Society of England.

Created LL.D. by Oxford.

Invented Franklin stove.

Improved the printing press.

Improved the rigging of ships.

Established American Philosophical Society.

Founded University of Pennsylvania.

Established Fire Company and Police force in Philadelphia.

Founded public libraries.

Was first Postmaster General.

Lived 84 years. Died honored and beloved.

MAXIMS FROM POOR RICHARD'S ALMANAC.

Great talkers are little doers.

Doors and walls are fools' paper.

Better slip with foot than tongue.

One today is worth two tomorrows.

Keep thy shop and thy shop will keep thee.

III. THE BIOGRAPHY OF A NATIONAL HERO

ABRAHAM LINCOLN

Occasion for reviewing the life of Lincoln comes at least once every year, on February 12. Too often the study is given over almost entirely to the recounting of amusing or characteristic anecdotes. - In the case of a man like Lincoln such a program is always a temptation, for one never tires of good stories, and about Lincoln

there are many of them. As the years go by, however, the stories are likely to be forgotten, but Lincoln will still be remembered, as he should be, for the greatness of his character and the significance of his public services. This is the thought of the following outline. In point of method it differs from the others by beginning with a series of quotations or estimates, and then sketching Lincoln's life under two main headings:



1. Estimates of Lincoln.

"When God made Lincoln He left the meanness out for other folks to divide up among 'emselfes."

"A new birth of our new soil, the first American."

"'First in peace, first in war, first in the hearts of his countrymen,' was first said of George Washington, but the last belongs peculiarly to Lincoln."

"He made two trips to New Orleans and each time came back with a boat load of arguments against slavery."

"He was accessible to people of every degree; the veriest darkey that scrubbed the steps was able to have an audience with 'Mars Lincoln.' The wife whose

husband lay languishing in some far-off prison did not come in vain to ask for exchange or furlough."

"His integrity could not be shaken; his sense of justice could not be perverted."

"To know him personally was to love and respect him for his great qualities of heart and head."—Grant.

2. Lincoln's Private Life.

a. Early youth—born in a cabin in Kentucky. Could read and write at five; taught himself arithmetic and grammar. His mother taught him Bible stories. "All that I am or hope to be I owe to my mother." Removed to Indiana at seven. Learned to work and helped clear land for new home. Grew up tall, gaunt, strong, and eager to learn.

b. Later youth—made several trips to New Orleans and learned to hate slavery. Engaged in store-keeping. Failed, but paid all debts, both his own and his partner's. Studied law.

3. Lincoln's Public Life.

In 1832 Whig candidate for legislature. "He was a rough looking fellow, but he made a sensible speech." Candidate again in 1834 and elected. "His ability to hold and please an audience was so marked that he became a leading man in the Whig party."

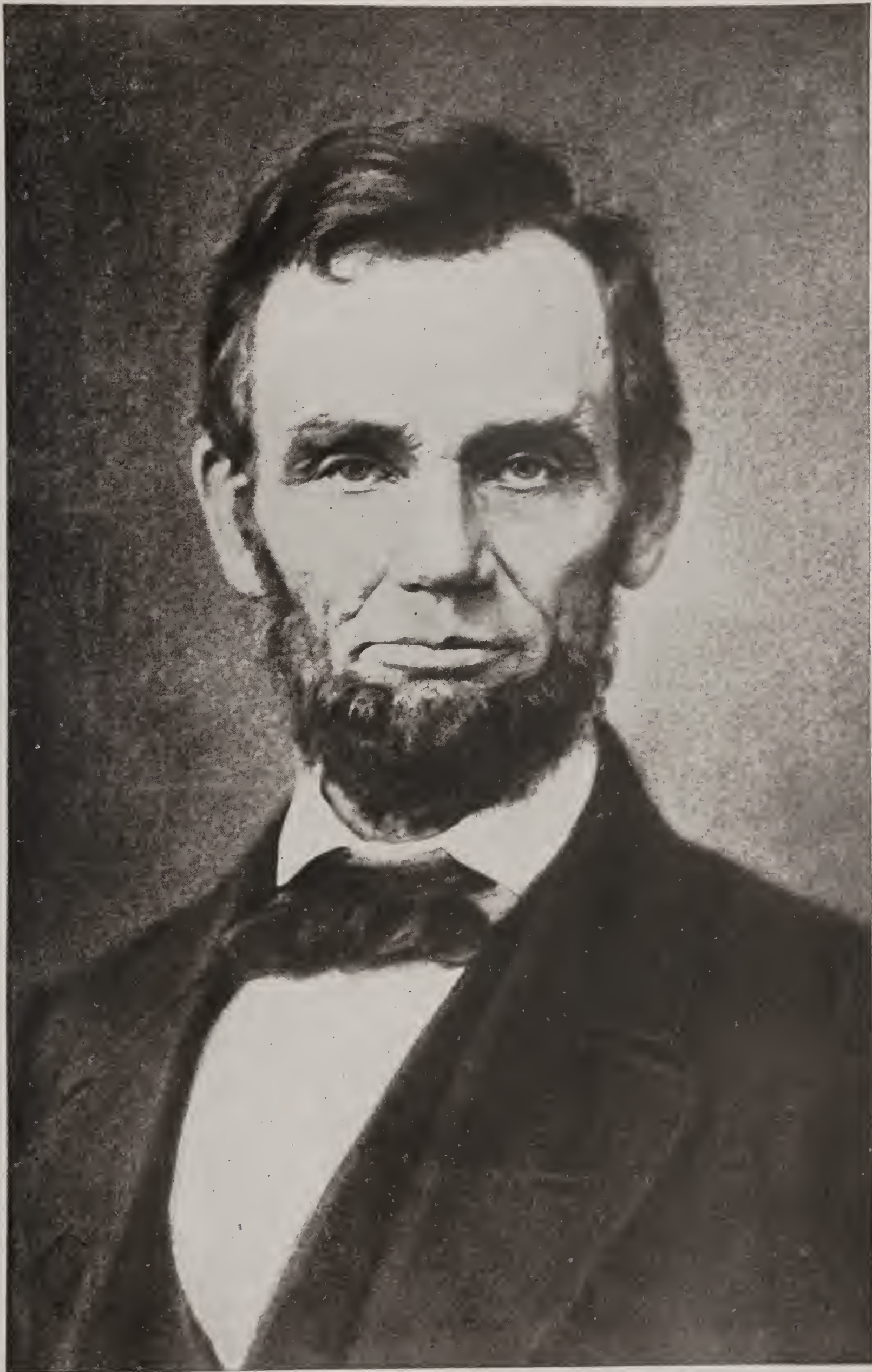
Sent to Congress in 1846. Became acquainted with great men. Always called "Honest Abe."

Elected to presidency in 1861. "I have taken a most solemn oath to preserve, protect, and defend the nation." Ready to accept advice but held affairs in his own hands. Won the admiration of enemies at home and of foreign potentates who at first made sport of him.

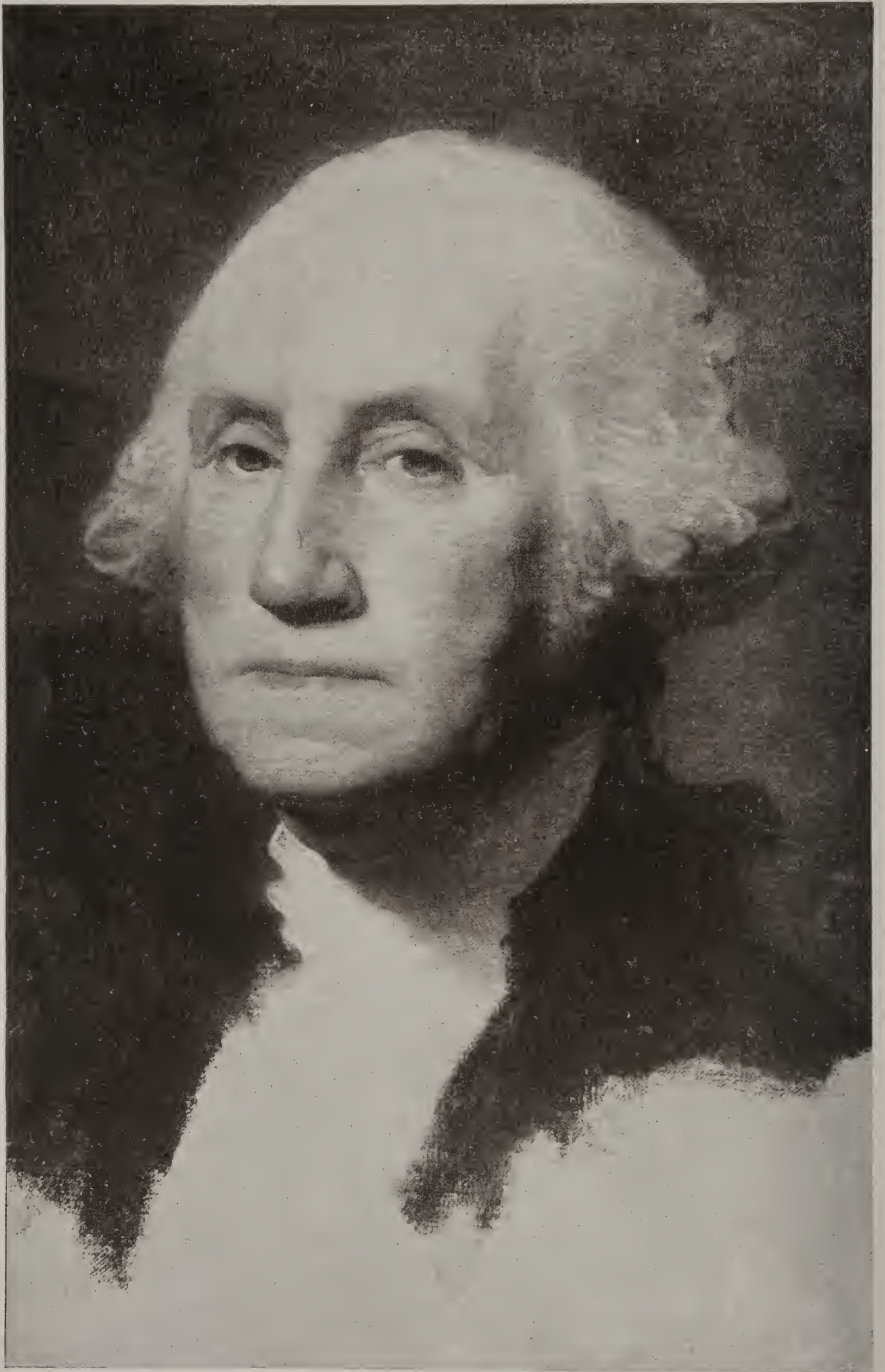
Emancipation Proclamation, 1863—the test of his promise to "hit slavery and hit it hard."

Gettysburg speech thought to be the finest specimen of oratory in existence.

Assassination, 1865. A nation in mourning. "In the death of Lincoln each man felt he had lost a just, wise, and patient friend." Monument at Springfield, 1874. Memorial building at birthplace, 1909. St. Gauden's "Lincoln" and Lincoln Park, Chicago, are memorials.



ABRAHAM LINCOLN



GEORGE WASHINGTON

IV. BIOGRAPHY OF A GENERAL

ROBERT E. LEE

Any present study of Lee differs from the study of any other general from the fact that lately a great change has come about in the popular estimate of him. Even in the North he is no longer thought of as the leader of a rebel cause so much as the mistaken champion of a theory of government which the times had made impossible. A study of Lee must, therefore, take into account the conditions of his life, explain his adoption of a losing cause, and justify the growing admiration for him.

1. Environment and Training.

Born in Virginia 1807—son of "Light-Horse Harry." Educated at West Point. Conscientious, studious, obedient, profoundly thoughtful. "I am convinced that duty is the sublimest word in the English language." Graduated second in his class. Married Mary Custis, a descendant of Martha Washington. Both family and early training inculcated the doctrine that loyalty to the state should come before loyalty to the nation. Intensely loyal to Virginia. "If I owned the three million slaves I would gladly give up all, but how can I draw the sword against Virginia, my native state?" Hence he fought against the Union when it became what seemed to him a foreign foe. Did not support slavery as an institution, but was opposed to the general emancipation of slaves, as he knew the institution of slavery was a part of the social rather than of the economic order.



2. Military Career.

a. Fought in the Mexican War with distinction.

Refused leadership of the Union Army.

Engaged in more than twenty battles of the Civil War.

Struggled with a raw, undisciplined army, inferior officers, weak government, poor roads, insufficient supplies.

b. Qualities as a General.

(1). Sagacious, penetrating, keen, careful in making movements.

(2). Deliberate—planned all his campaigns in advance.

(3). Foresighted—estimated with wonderful precision the strength and movement of the enemy.

(4). Surrendered to Grant without bitterness.

3. Career After the War.

Refused lucrative offers both from England and at home.

Devoted remaining days to educational work as president of a college.

Outlined a sound system in military tactics and a definite policy in healing the wounds made by the Civil War.

Died the idol of the South and beloved by his students.

V. THE BIOGRAPHY OF A MONARCH

QUEEN VICTORIA

In studying the life of a ruler, the chief interest is, of course, on the public side—achievements in peace and war, reforms, influence on world history, etc. The personal life of great characters is, however, always interesting. The study might, therefore, fall under three main headings, as in the following:

1. Ancestry, Education, and Personal Character. Granddaughter of George III., House of Brunswick, Hanover, and Coburg. Reared by her mother with exceptional prudence and care. Educated chiefly by Bishop of Peterborough. Confirmed at 16. Traveled on the continent. Married in 1840 to Prince Albert of Saxe-Coburg Gotha. Retired from social life for many years after his death in 1861. Issued a small journal of her husband's life. Possessed clearness of judgment, moderation, and genuine goodness, Sympathetic in sorrow, devoted to her family, beloved of all her subjects.



2. Public Life.

Called to the throne, 1837; crowned, 1838.

Diamond Jubilee, 1897.

Great events of her reign:—

Rebellion in Canada.

Opium War in China.

Abolition of Corn Laws.

Successive Parliamentary Reforms.

Enfranchisement of the Jews.

Assumption of Government of India.

Crimean War.

Wars with Afghanistan, Abyssinia, Zulu Tribes, and Egypt.

Irish Home Rule Struggle.

Beginning of South African War.

Australian Federation.

3. Affairs in which Victoria was directly influential:

'The Repeal of the Corn Laws. (She urged this measure strongly from the beginning).

Instituted Victoria Cross for bravery in battle, 1856.

Created Star of India to reward native loyalty.

Inaugurated National Rifle Association.

Instituted Albert medal for bravery at sea, 1866.

Always sent personal gifts of clothing and provisions to suffering soldiers.

Ordered formation of Irish Guards.

VI. THE BIOGRAPHY OF AN INVENTOR

THOMAS A. EDISON

The life story of a man who is living and working today is always interesting to chi'dren. This is particularly true of a man like Edison, whose energies have been devoted to inventions closely related to practical life. It is often a good plan in such a case to present at once a list of the man's achievements and then go back to mere personal or incidental matters.

1. Edison's Inventions (Partial list).

- (1). Phonograph.
- (2). Long-distance telephone.
- (3). Duplex telegraph system.
- (4). Carbon telephone transmitter.
- (5). Microtasimeter
- (6). Aerophone.
- (7). Megaphone.
- (8). Incandescent electric light.



- (9). Kinetoscope.
- (10). Storage battery for street cars and automobiles.
- (11). Automatic telegraph repeater.
- (12). Commercial stock indicator.

2. Honors.

Edison has taken out more than 300 patents. Every electrical contrivance invented by him bears the mark of his genius.

In 1878 he was made Chevalier of the Legion of Honor of France.

In 1889 he was given the insignia of a Grand Officer of the Crown of Italy by King Humbert.

In 1892 he received the Albert Medal of the Society of Fine Arts, Great Britain.

3. Personality.

Genius is two per cent inspiration and ninety-eight per cent perspiration is his theory.

He owns an immense laboratory and reads exhaustively before beginning his work.

He makes hundreds, even thousands, of experiments before he is confident of success.

He works fifteen hours a day. During vacation he refuses to talk business or science.

Edison began life as a trainboy. At 15 he edited and published the *Grand Trunk Herald*. He learned telegraphy from a man whose son he had saved.

Lost several positions because of his dislike for routine and fondness for study.

Named his children "Dot" and "Dash." Called "The Wizard of Menlo Park."

"The young man who keeps the path to the patent office hot with his footsteps."



HISTORY

INTRODUCTION.

Many people regard history as merely dates and names. Others think of it as merely wars and their results. Both views have truth back of them; but both are very one-sided and imperfect conceptions. History is made by human beings in action. No one acts without a motive. History, therefore, brings into view human motives or incentives, what they lead people to do, and what results follow.

A single individual may play an important part in history, it is true. But that is because the individual represents some great principle or cause or is a great leader of men. It is the study of cause and effect which adds to the value of history and to its interest. It is not a dry study. It not only shows the motives influencing people and nations, and the results of their actions, but it shows how individuals and nations accomplish or try to accomplish the objects they have in view. It shows, also, the steps taken to defeat some enterprise or aim.

It deals with commerce, with war, with government, with schemes and plans, with intrigue, with noble and patriotic men and women, with ignoble and selfish men and women, with great causes working out results along different lines, with conflicts of national policy and national as well as individual diplomacy, with the growth and decay of nations and of institutions—in short, with all those things which it should be a delight to study.

United States history begins before there was any United States government. This is a great nation—now one of the greatest nations of the world. Once it was a little, weak group of discontented, jealous, many-sided colonies. Is it not of interest to know what brought about the change? Is it not instructive to know what influences tied the states together into a Union so strong that even the great struggle and the great losses of the Civil War could not break it to pieces? Is it not valuable to know that every true American citizen loves the “Stars and Stripes” and never walks into a hall decorated with this banner without a feeling of pride and a consciousness of being part of a great nation?

These things are portrayed in a graphic and suggestive manner in the outlines, charts, maps, etchings, etc., given herewith. As the eye is always a great help to the mind in grasping a truth or fact that can be illustrated, no expense has been spared in the use of colored charts where these would add vividness to the presentation. Essentials only are given, leaving to the reader the pleasure and the profit of thinking or working things out in his own way. He who will follow these suggestions will not only see how the United States has become a great nation but he will also learn how modern development may be directed into right channels.

STEPS IN THE GROWTH OF CIVIL LIBERTY

1. The love of liberty was strong in the Angles and Saxons when they conquered England.
2. Henry I grants the “Charter of Liberties” in 1101.
3. King John, at Runnymede in 1215, grants “Magna Charta.”
4. Firm establishment of House of Commons by Simon de Montfort in 1265.

(The English Parliament and constitutional freedom in Great Britain are usually credited to De Montfort.)

5. The "Petition of Rights," in 1628, forced from Charles I the acknowledgment of the privileges of the Commons and the rights of the people which he was violating. These were emphasized in America by the Massachusetts "Body of Liberties," 1641.

6. The "Habeas Corpus Act" of 1679 reaffirmed the principles set forth in Magna Charta, and fully defined the right of prompt trial, etc.

7. The "Bill of Rights," setting forth the fundamental rights of the people, was passed by the English Parliament after the Revolution of 1689.

8. The American colonies, in the resistance to the "Stamp Act" of 1765, affirmed the doctrine of "no taxation without representation."

9. The same colonies resisted the "Declaratory Act" of 1766 on the ground that it claimed the power to take from them the rights granted by the charters and bills mentioned above.

10. Assertion of the same rights in the resistance of the colonies to the "Duties Act" of 1767.

11. The "Declaration of Independence," issued by the colonists July 4, 1776, declared the right of the people to separate from a government which undertook to deprive them of their liberties and to form a government to protect those liberties.

12. The recognition of the new nation on Sept. 3, 1783.

13. The adoption of the United States Constitution in 1787 established a nation devoted to civil liberty.

14. The "Emancipation Proclamation," effective on Jan. 1, 1863, freed all slaves in states in rebellion.

15. The "Thirteenth Amendment" to the United States Constitution, adopted Dec. 18, 1865, declares: "Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States or any place subject to their jurisdiction."

OBJECTS OF INTEREST

"The Liberty Tree," a poem by Thomas Paine during the Revolutionary War.

"The Liberty Tree," an elm tree in Boston, Mass., on which were hung effigies of officials concerned in the Stamp Act.

"Liberty Bell," the famous bell on the dome of the old State House, Philadelphia, Pa., whose ringing announced the adoption of the Declaration of Independence.

"Statue of Liberty," a colossal statue on Bedloe's Island in New York Harbor, designed by Bartholdi, paid for by popular subscription in France, and unveiled on Oct. 28, 1886.

FIRST INHABITANTS

CLIFF DWELLERS

I. RACE.

1. American aborigines of unknown origin.
2. Supposed to be ancestors of Pueblos.

II. WHERE LIVED.

1. In San Juan and neighboring valleys; on lofty plateaus, etc. (N. Mex., Colo., Ariz., Utah.)
2. In the vicinity of the Rio Grande and Colorado Rivers.
3. In Mexico.

III. HOMES.

1. Of wood or skins, usually built on cliffs difficult of access.
2. Of caves, sometimes with several rooms, hewn in rock.

IV. OCCUPATIONS.

1. Fishing.
2. Hunting.
3. Cultivation of the soil.
4. Decorating pottery or other earthenware, and crude ornamentation of homes and weapons.

5. Irrigation, constructing reservoirs, etc.

V. INDUSTRIES.

1. Making and marking rude weapons.
2. Making utensils, pottery, etc.
3. Forming simple paints.
4. Quarrying or hewing stone.
5. Light farming.
6. Constructing homes and defenses.

VI. REMAINS.

1. Cliff and cave homes showing some knowledge of architecture.

2. Decorated pottery and ornamented weapons, showing some acquaintance with art and fondness of display.
3. Stone weapons (mainly granite or flint), also bone weapons, but none of metal.
4. In southern Arizona and Mexico some indication of simple crops and of domestic animals.
5. Their homes, in manner of construction, show fear of some enemy.

THE MOUND BUILDERS

The antiquities of the Mound Builders are even more strange than those of the Cliff or Cave Dwellers. For the view that they even preceded the inhabitants of the rocky fortresses of the southwest in their occupation of this country there is strong probability. Others hold that the two races were contemporaneous and were threatened and finally destroyed by their warlike neighbors. The history of neither people is in our possession, and, except as it may be inferred from their remains, is forever lost. Their structures, their implements, the minerals, which they knew and used—these are facts; all else is inference or tradition. One thing alone seems assured with regard to the American aborigines—or those whose life preceded what is frequently termed “aboriginal America”—that the race is a distinct type, taking its origin (if a common one) from the period when mankind was in its infancy.

As to the Mound Builders:

I. ORIGIN, LOCATION, DISAPPEARANCE.

1. Origin—unknown, but distinct.
2. General residence—in the valleys of the Mississippi River and its tributaries. Especially numerous in Ohio, Illinois, and Missouri.
3. Special residence—near Wheeling, W. Va.; Marietta, Newark, Adams and Butler Counties, Ohio; Cahokia, Ill.; St. Louis, Mo. (Mound City); Iowa, Wisconsin, Minnesota, and forests bordering on the Gulf of Mexico, etc.
4. Disappearance—unknown, but supposed to be due to attacks of warlike hunting tribes. Might have been due to migration or disease. No record.

II. CHARACTER OF THEIR STRUCTURES.

1. Mounds of earth, or tumuli, in various shapes.
2. Evidently not intended to be temporary, but to remain.

3. Show knowledge, skill, application, patience.
4. Indicate a large and widespread population of one race, one purpose, one manner of life.
5. Built for various uses:
 - a. For defense.
 - b. For worship.
 - c. For watch-towers.
 - d. For altars or crematories.
 - e. For some allegorical representation (in shape of animals, etc. Query: Where did they get their knowledge of an elephant?).
 - f. For sepulture. The very large mounds were evidently tombs of rulers or persons of note.

III. CIVILIZATION OF THE PEOPLE.

1. Shown by the kind of construction—accurate as to geometrical form, often immense in size, systematic in arrangement, well adapted in purpose.

2. Number and size of the structures show a large and resourceful population. Otherwise it could not support those engaged in building these earthworks.
3. Further indicated by the various arts which the Mound Builders displayed: in constructing irrigation canals; in raising crops; in painting their pottery; in the construction of their military defenses, temples, reservoirs, altars for religious rites, animal forms, etc.
4. Might be inferred also from their manufacture of carvings, utensils and weapons from granite, flint, mica, shells, stones, and copper; earthenware frequently of elegant design, of vases, and of wickerwork; and finally from their evidently designing some form of government which caused the people to act together.

IV. ANTIQUITY OF MOUND BUILDERS.

1. No traditions among the Indians point to the Mound Builders as their ancestors.
2. Great forest trees growing upon them show the age of the mounds.
3. None of the mounds are found upon the lower terraces of streams—showing that the people had disappeared before the rivers had cut that deep.
4. Skeletons, even in moist soil, will often last 1500 to 1800 years; in dry soil, often 2500 to 3500 years. The soil in the mounds is dry and the skeletons nearly decomposed, showing they must have been there 2000 or 3000 years.
5. No Indians ever found numerous enough, with sufficient skill, or with the disposition to support workmen building such structures.

NORTH AMERICAN INDIANS

I. THE NAME.

1. Due to the mistaken idea that this country, when discovered, was India.
2. Is applied in general to the inhabitants found in America by the first white settlers from Europe.
3. Does not mark a single nation divided into various tribes (as many of the tribal names now used are really terms of reproach or contempt, or due to some characteristic), but yet seems to belong to one race of people.

II. RACIAL CHARACTERISTICS.

1. Black, coarse hair, and light, straight beard.
2. High cheekbones and prominent nose.
3. Small, dark, piercing eyes.
4. Color ranging from light copper to almost black.
5. A good friend; a dangerous enemy.

6. Crafty, shrewd, tenacious when he believes he is in the right or in power, yet with a disposition to nobility of manner and action.
7. Taciturn, stoical, opposed to manual labor as belonging to women, a good student of human nature. The Indian today is a man without a country.

III. FIRST ARTS AND OCCUPATIONS.

1. Agriculture. Grew corn, beans, squashes, tobacco, potatoes.
2. Manufacturing. Made tents and clothing from skins; utensils and weapons from wood, stone, and copper; few ornaments from shells, silver, gold, and bronze; canoes from bark or hollowed logs; women did some weaving and basket work and made pottery from clay.
3. Mining. Dug copper in Michigan.
4. Time mostly spent in hunting, fishing, games, and rude sports.

IV. PRESENT ARTS AND OCCUPATIONS.

1. Many still prefer to live a savage life.
2. Others are actively engaged in trade, in farming, in cattle-raising, in manufacturing, and in other industries.
3. Some still maintain the tribal relation; others have given up the tribal idea but try to maintain racial purity; and still others are gradually mingling with white blood.

V. RELIGION.

1. Belief in a Great Spirit and in a possible life in the Happy Hunting Grounds seemed general.
2. Evil spirits were thought to be appeased by sacrifice (human or animal).
3. Faith in another life was shown by placing food, weapons, and even the dead body of his war-horse upon the grave of a deceased warrior.

VI. GOVERNMENT.

1. Originally tribal; occasionally centralized.
2. Many tribes have disappeared or are represented by a few individuals only.
3. The United States government favors:
 - a. The tribal relation.
 - b. Gathering tribes upon reservations.
 - c. Grants to be distributed periodically in compensation for property taken away.
 - d. Efforts to civilize by schools of learning and by training in the manual arts and in scientific farming.
 - e. Fostering the establishment of home life and good home influences.

VII. INDIANS IN UNITED STATES HISTORY.

1. They taught the first settlers how to cultivate corn, tobacco, and a few vegetables.

2. They also taught them how to cure skins for clothing and shoes, and how to trap the fur-bearing animals.
3. In many cases the whites repaid the Indians by cheating them in trades, by teaching them to drink, and by scheming to get their property from them—things unfortunately continued to this day.
4. The Indians were incited to many atrocities in the early wars by the French and the English, both of whom used them in contests.
5. In conflict with the white settlers or with the United States Government, the Indians have been active.
 - a. In the Virginia massacres of 1622 and 1644.
 - b. In the wars of New England with the Pequots in 1637, with the Narragansetts in 1643, and with King Philip in 1675.
 - c. In the fierce war of the Tuscaroras with North Carolina in 1711, and of the Yamasees and their confederates with South Carolina in 1715.
 - d. In the French and Indian War of 1754.
 - e. In the Conspiracy of Pontiac in 1763.
 - f. In the Revolutionary War the Six Nations sided with the British.
 - g. In the Miami (Tecumseh) Rebellion of 1790-1813.
 - h. In the Seminole War of 1817, and again in 1835.
 - i. In the Black Hawk War of 1832.
 - j. In various conflicts in Dakota and elsewhere.
 - k. In the Modoc War, 1872-73.
6. At no time does the Indian appear as an unlifting influence. He seems neither to absorb nor to be absorbed. His future is a grave problem for history to solve.

ESKIMOS OR INNUITS

- 1. Where found? Number.
- 2. Description: body, legs, hands, feet, hair, eyes, nose, cheeks, race and color, habits.
- 3. Dwellings: difference between summer and winter homes? Where located? How erected?
- 4. Food: when obtained from polar animals, how obtained and what parts eaten? What of their fish food? What of food from explorers?
- 5. Clothing: materials; how made; sleeping bags; the hood cradle.
- 6. Industries: why confined to fishing and hunting?
- 7. Modes of travel: sledges, how made; boats, materials used.
- 8. Value of the Eskimo dog; uses to which he is put.

QUESTIONS

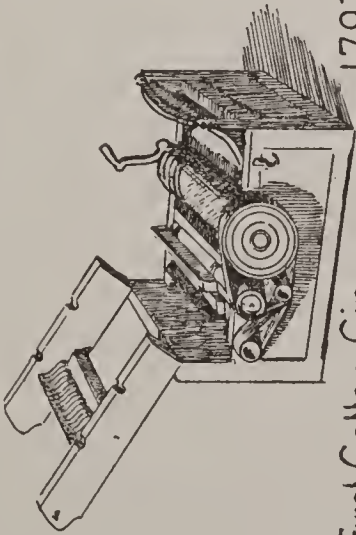
- (1) Do you think the Eskimos have schools? Why?
- (2) How long does day last in the Arctic regions?
- (3) What wonderful sights do the Eskimos have that we only occasionally get for a very short time? (See AURORA BOREALIS.)
- (4) Make a list of all the animals you can find in the Arctic regions. Make a similar list of all the plants. How many of these have you ever seen? What have you at home that is a product of any of these? What food of explorers is becoming popular with the Eskimos?
- (5) Draw pictures of Eskimo sledges, houses, harpoons, and as many other things they use as you can.
- (6) What games do the Eskimo children play?
- (7) How do the people keep warm in their winter homes? Describe an Eskimo bed.
- (8) Do they cook their food?
- (9) What advantages have you over the Eskimos?

(To answer these questions, read the articles in the body of the work on ALASKA, GREENLAND, ESKIMO.)

SETTLEMENTS IN THE STATES

STATE	FIRST SETTLEMENT	DATE	INCIDENT
Alabama	Mobile	1702	French build fort.
Arizona	Tucson	1580	Spanish Mission.
Arkansas	Arkansas Post	1685	Bienville's French company.
California	San Diego	1768	Spanish priests from Mexico.
Colorado	Kearney City	1857	Gold discoveries.
	Fort Laramie		
Connecticut	Winslow	1636	Ministers and people.
Delaware	Wilmington	1637	Swedes and Finns.
Florida	St. Augustine	1565	Menendez for Spain first set.
Georgia	Savannah	1733	Jas. Oglethorpe, poor debtors.
Idaho	Coeur d'Alene	1882	Mineral discoveries.
Illinois	Kaskaskia	1678	Marquette establishes mission.
Indiana	Vincennes	1731	Settled by the French.
Iowa	Dubuque	1833 (1788)	Julian Dubuque, trader.
Kansas	Leavenworth	1854	Established as a fort.
Kentucky	Harrodsburg	1774	By Virginia emigrants.
Louisiana	New Orleans	1718	Bienville's development.
Maine	Saco	1623	Gorges, home and worship.

ADMINISTRATION OF WASHINGTON



First Cotton Gin, 1793

First Census, 3,229,219 1790
Thanksgiving Day Proclamation, 1790



First U.S. Bank 1794

Admitted, 1791

Discovery of the
Columbia River 1792
Mississippi River
Opened 1796

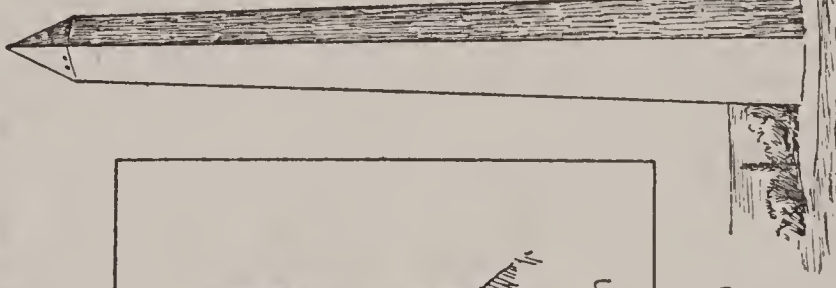


Beginning of Commerce

1789



Washington

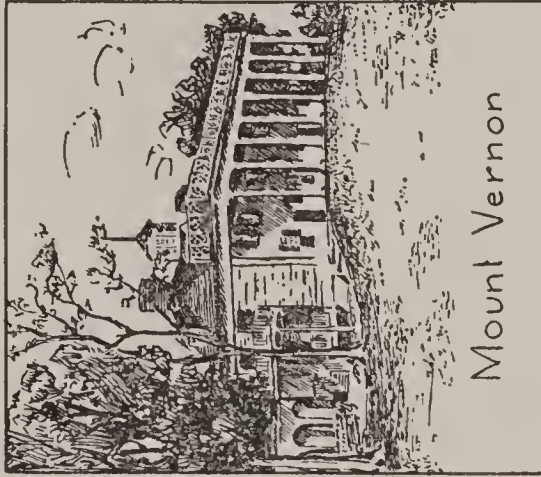


Washington Monument

Deaths

Benj. Franklin 1790
Gen. Putnam 1790
John Paul Jones 1792

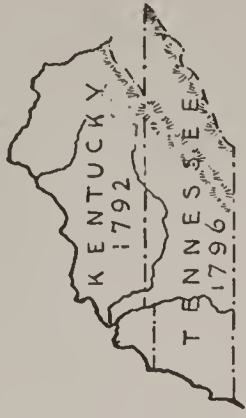
1797



Mount Vernon

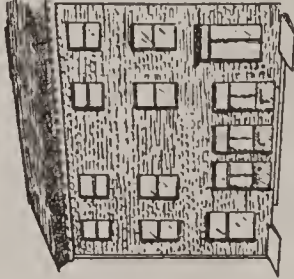
Foreign Relations
Proclamation of
Neutrality 1793
Citizen Genet 1793-4
Jay's Treaty 1795
Treaty with Spain 1795
Treaty with the
Barbary States 1795-7

Cabinet
Jefferson - Secy. of State
Hamilton - Secy. of the
Treasury
Knox - Secy. of War
Randolph - Atty General
Osgood - Postmaster
General, (not Cab. Mem.)



Admitted to the Union

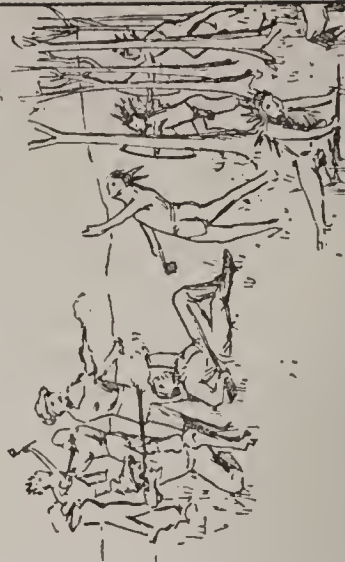
The Discovery of Coal in
Pennsylvania 1791
Whiskey Rebellion 1794



The First
U.S. Mint, 1792

The District of
Columbia
located, 1790

Ratification of Constitution
by Rhode Island, 1790
Ten Amendments to the
Constitution, 1790



Indian Wars 1790-94

L.L.S.



CHART OF DISCOVERIES

COLONIES

1600

	VIRGINIA	MARYLAND	N. CAROLINA	NEW YORK	NEW JERSEY	DELAWARE
1600	07. Jamestown.			09. Hudson River.		
	08. John Smith, Gov.					
	10. Lord Delaware.			14. New Amsterdam.	17. Bergen.	
	12. Tobacco.			21. Dutch West India Co.		
	19. Legislative Assembly.			23. Colony formed.	23. English.	
1625	19. Slavery introduced.			29. Patroon System.		
	21. Written Const.			33. Wouter Van Twiller.	32. Fort Nassau Destroyed.	
	22. Indian Massacre.					
	24. Overthrow of London Co.					
	29. Sir John Harvey	34. St. Mary's (Catholics).				31. Dutch at Lewes.
		38. General Assembly				
	42. Gov. Berkeley.			47. Peter Stuyvesant.		
	44. Indian Massacre.					
1650		49. Toleration Act.	53. First Settlement.	55. Dutch Conquest of New Sweden.	55. Stuyvesant.	55. Stuyvesant's Expedition.
	51. Navigation Acts.	49. Annapolis founded.				
	55. Coming of Cavaliers.	55. Civil War.	63. Grant to Proprietors.	64. English Conquest (Named New York).	64. Named New Jersey.	64. Changes Hands (Dutch to Eng.)
			69. "Grand Model" a Failure.		64. Elizabethtown.	
				73. Retaken by Dutch.	65. Slavery.	
1675	76. Bacon's Rebellion.			74. Restored to Eng.	73. East and West Jersey.	
	77. Proprietary Gov't.			75. Andros, Gov.	74. Sold to the Quakers.	
				83. First Assembly.	81. Salem Assembly.	82. Purchased by Penn.
	88. Free Schools.		90. Southel's Rebellion.		88. Charter Annulled.	
	93. Wm. and Mary's College.	91. Royal Gov't.	91. Union of Carolinas under one Gov't.	90. Schenectady Intercolonial Assembly.		
1700	98. Williamsburg the Capital.			97. Capt. Wm. Kidd.		
					02. Jerseys United.	03. Separate Assembly
		15. Proprietary Gov't.	12. Carolinas Dvided.			
1725						
	32. Birth of Washington.		29. N. and S. Carolina Royal Provinces.	32. Gov. Crosby.		
				34. Freedom of Press.		
					38. Royal Colony.	
				41. Negro Plot.		
1750						
	54. Washington Com-in-Chief.		50. Largest Producer of Naval Stores.	54. Albany Congress.		
				54. Fr and Ind. War.		
				55. Lake George.		
				58. Ft. Ticonderoga.		
	65. Patrick Henry (Virginia Resolutions).	63. Mason and Dixon's Line.		65. Colonial Convention.		
1775	75. Delegation to Continental Congress.	73. Committees of Correspondence.		74. Declaration of Rights.		
				75. Ticonderoga taken.		

COLONIES

MASSACHUSETTS

20 Plymouth.
23. New Hampshire Settled
26. Maine Settled.
28. Mass. Bay Colony.
33. Boston Founded

36. Harvard College.
37 Pequot War.
39. Printing Press.
41. N. H. Annexed.
43. Union of Colonies
47 Public Schools Established.
51 Maine Colonies Annexed.
56. Quakers per-secuted.

75. King Philip's War

84. Charter forfeited
86. Andros.
89. King Wm's. War.
92. Salem Witchcraft
92. Union of Colonies

02. Indian Troubles
02. Queen Anne's War

44. King George's War.
45. Louisburg

54. French and Indian War.
59. Quebec captured.

70. Boston Massacre
73. Boston Tea Party
75. Lexington and Bunker Hill.

NEW HAMPSHIRE

79. Royal Province.

86 Part of Dominion of New England
92 Again Separated.

99 United.

41 Final Separation

CONNECTICUT.

33 Hartford.
37 Pequot War.
38. New Haven.

62 Charter Granted

84 Quarrel with Mass
87 Andros (Charter Oak)
92 New Charter

01 Yale College.

39. Fundamental Orders.

RHODE ISLAND
36 Providence (Roger Williams)
38 Newport
39 Baptist Church

47 Code of Laws

63 Charter of Charles II
64. Brown University

75 King Phillip's War

87 Joined to New York

00. Pirates hung

72. The Gaspee burned

S. CAROLINA

70. Settled by English
71 Slavery

80. Charleston founded

00. Public Library (Charleston)
02. Expedition against St Augustine
06 Spanish Invasion

10. Free Schools established

29. Royal Province

PENNSYLVANIA

38 Swedes

55 Dutch

80. William Penn.
82. Indian Treaty.
83. Delaware added

01 New Constitution

GEORGIA

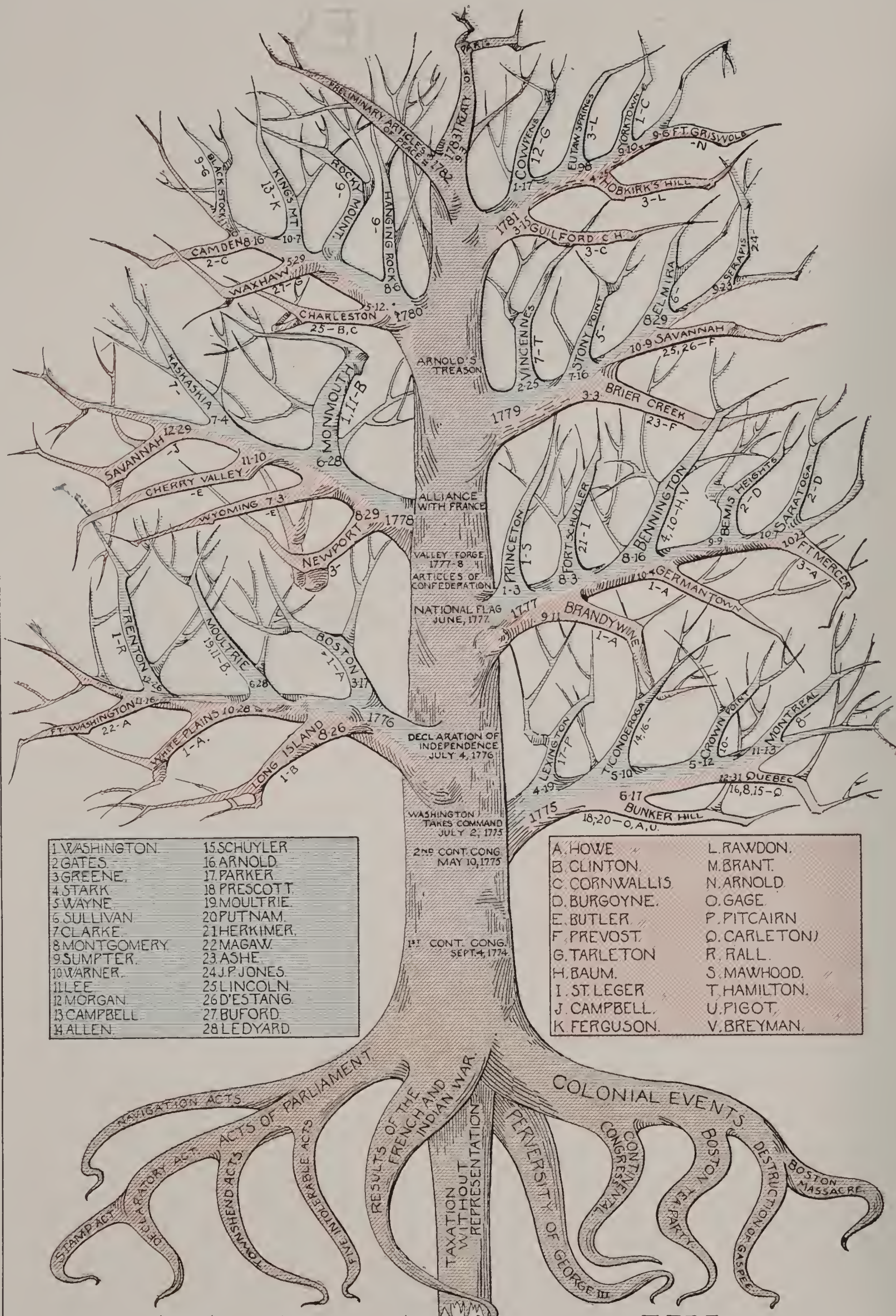
33. Savannah.
35. The Wesleys

42. Spanish Invasion

52. Royal Province

54 Era of Franklin
55. Braddock's Defeat (Fort Duquesne)

74 First Cont. Cong
75 Second Cont. Cong



1 WASHINGTON	15 SCHUYLER
2 GATES	16 ARNOLD
3 GREENE	17 PARKER
4 STARK	18 PRESCOTT
5 WAYNE	19 MOULTRIE
6 SULLIVAN	20 PUTNAM
7 CLARKE	21 HERKIMER
8 MONTGOMERY	22 MAGAW
9 SUMPTER	23 ASHE
10 WARNER	24 J.P. JONES
11 LEE	25 LINCOLN
12 MORGAN	26 D'ESTANG
13 CAMPBELL	27 BUFORD
14 ALLEN	28 LEDYARD

A. HOWE	L. RAWDON
B. CLINTON	M. BRANT
C. CORNWALLIS	N. ARNOLD
D. BURGOYNE	O. GAGE
E. BUTLER	P. PITCAIRN
F. PREVOST	Q. CARLETON
G. TARLETON	R. RALL
H. BAUM	S. MAWHOOD
I. ST. LEGER	T. HAMILTON
J. CAMPBELL	U. PIGOT
K. FERGUSON	V. BREYMAN

The Revolutionary War

ADMINISTRATIONS.					
		1789	1797	1801	1809
EXECUTIVE	PRES	WASHINGTON	ADAMS	JEFFERSON	MADISON
	MESSAGES AND PAPERS	FAREWELL ADDRESS	ON FRENCH INSULT	FIRST WRITTEN MESSAGE	WAR WITH ENGLAND
	CABINET LEADERS	JEFFERSON	PICKERING WOLCOTT	MADISON DEARBORN	
LEGISLATIVE	NO. OF MEMBERS	SENATE 26 HOUSE 65	SENATE 32 HOUSE 105	SENATE 32-34 HOUSE 141	SENATE 34-38 HOUSE 181
	PRES. OF SENATE	ADAMS	JEFFERSON	BURR CLINTON	CLINTON GERRY
	SPEAKER OF HOUSE	MUHLENBERG, TRUMBULL, DAYTON	SEDGWICK	MACON VARNUM	CLAY CHEEVES
	LEADERS	MADISON	GERRY	CLAY J.Q. ADAMS	CALHOUN CLAY (WEBSTER)
	LAWS	REVENUE BILL NATURALIZATION LAW	ALIEN AND SEDITION ACTS	EMBARGO ACT NON-INTERCOURSE ACT	NON-INTERCOURSE ACT REPEALED. STATE BANKS CHARTERED
JUDICIAL	CHIEF JUSTICE	JAY RUTLEDGE ELLSWORTH	ELLSWORTH	MARSHALL	
	DECISIONS	CHISHOLM VS. THE STATE OF GEORGIA		MARBURY VS. MADISON	
LEADING EVENTS	WARS AND RIOTS	INDIAN WHISKEY REBELLION	QUASI	TRIPOLI	INDIAN WAR. WAR OF 1812
	INTERNATIONAL RELATIONS	TREATY WITH ENGLAND TREATY WITH SPAIN	TREATY WITH FRANCE	LOUISIANA PURCHASE "RIGHT OF SEARCH"	TREATY OF GHENT
	INDUSTRIAL PROGRESS	INVENTION OF COTTON GIN	LOCOMOTIVE PLOW	STEAMBOAT, BLOW PIPE, STEAM DREDGE	BREECH-LOADING RIFLE PRINTING COTTON GOODS
	INTERNAL AFFAIRS	PETITION TO ABOLISH SLAVERY	DEATH OF WASHINGTON	SLAVE TRADE ABOLISHED LEWIS AND CLARK EXPED.	WASHINGTON BURNED HARTFORD CONVENTION
	NEW STATES	VERMONT KENTUCKY TENNESSEE		OHIO	LOUISIANA INDIANA
	FOREIGN EVENTS	FRENCH REVOLUTION	FRENCH DIRECTORY OVERTHROWN	MILAN DECREE	REV. IN VENEZUELA MEXICAN UPRISING

ADMINISTRATIONS.

	1817	1825	1828	1837	1841	1845	49
PRES.	MONROE	ADAMS	JACKSON	VAN BUREN	HARRISON TYLER	POLK	
MESSAGES	MONROE DOCTRINE	ROADS AND CANALS	BANK MESSAGE	INDEP. TREASURY		TARIFF MESSAGE	
CABINET	ADAMS CALHOUN	CLAY RUSH	VAN BUREN LIVINGSTON BERRIEN	FORSYTH	WEBSTER CALHOUN	BUCHANAN	
NO. OF MEMBERS	SENATE 38-48 HOUSE 213	SENATE 48 HOUSE 213	SENATE 48-52 HOUSE 240	SENATE 52 HOUSE 240	SENATE 52 HOUSE 223	SENATE 58 HOUSE 223	
PRES. OF SENATE	TOMPKINS	CALHOUN	CALHOUN VAN BUREN	JOHNSON	TYLER SOUTHARD MANGUM	DALLAS	
SPEAKER OF HOUSE	CLAY TAYLOR BARBOUR	TAYLOR STEVENSON	BELL POLK	HUNTER	WHITE JONES	DAVIS WINTHROP	
LEADERS	CLAY WEBSTER JACKSON	VAN BUREN BUCHANAN	WEBSTER, CLAY, HAYNE, BENTON.	WRIGHT ADAMS	CLAY WEBSTER	WILMOT CORWIN	
LAWS	TENURE OF OFFICE ACT	TARIFF OF 1828	U.S. BANK VETOED FORCE ACT	SUB-TREAS. BILL	ANNEXA- TION BILL	WILMOT PROVISO	
CHIEF JUSTICE	MARSHALL	MARSHALL	TANEY		TANEY		
DECISIONS	DARTMOUTH COLLEGE McCULLOCH VS. MARYLAND						
WARS	SEMINOLE		BLACKHAWK. SEMINOLE.	SEMINOLE	DORR REBELLION	MEXICAN	
INTERNATIONAL RELATIONS	TREATY WITH CANADA		TREATY WITH BRAZIL		WEBSTER ASHBURTON	TREATY OF HIDALGO	
INDUSTRIAL PROGRESS	FIRST STEAM VOYAGE ACROSS ATLANTIC	PLANING MA- CHINE. PASSEN- GER TRAIN	COLT'S REVOLVER. TYPEWRITER.	MATCHES TELEGRAPH	USE OF ETHER		
INTERNAL AFFAIRS	FLORIDA ACQUIRED MISSOURI COMPROMISE	DEATHS OF ADAMS JEFFERSON	RISE OF AMERICAN LITERATURE	INDIANS RE- MOVED TO IND. TER.	POSTAGE STAMPS	DISOF GOLD IN CALIFORNIA	
NEW STATES	MISS., ILL., ALA., ME., MO.		MICHIGAN ARKANSAS		TEXAS FLORIDA	IOWA WISCONSIN	
FOREIGN EVENTS	MEXICAN REVOLUTION		IND. OF MEXICO IND. OF TEXAS	CAN REB. VICTORIA CROWNED	FED UNION IN C.A. DISSOLVED		

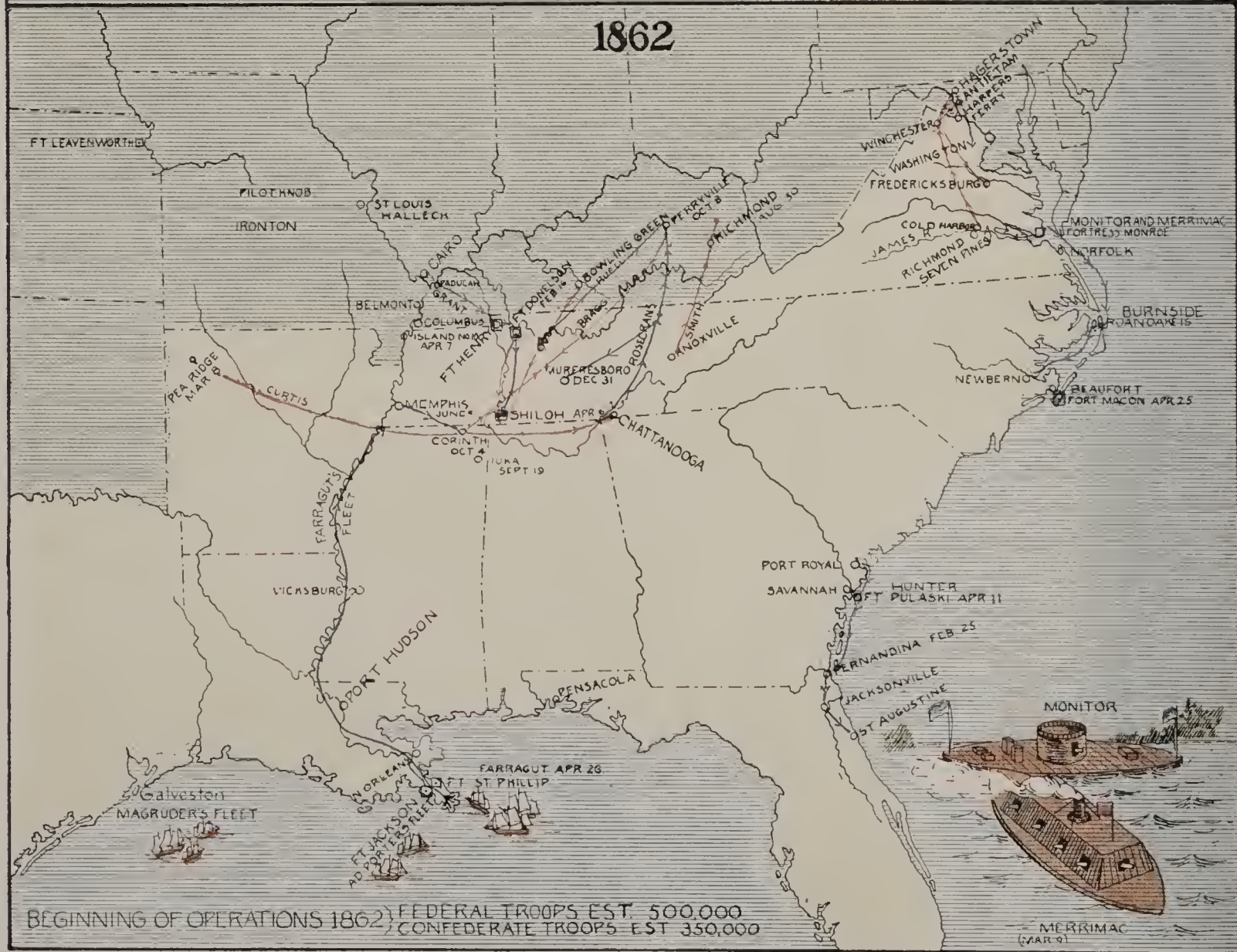
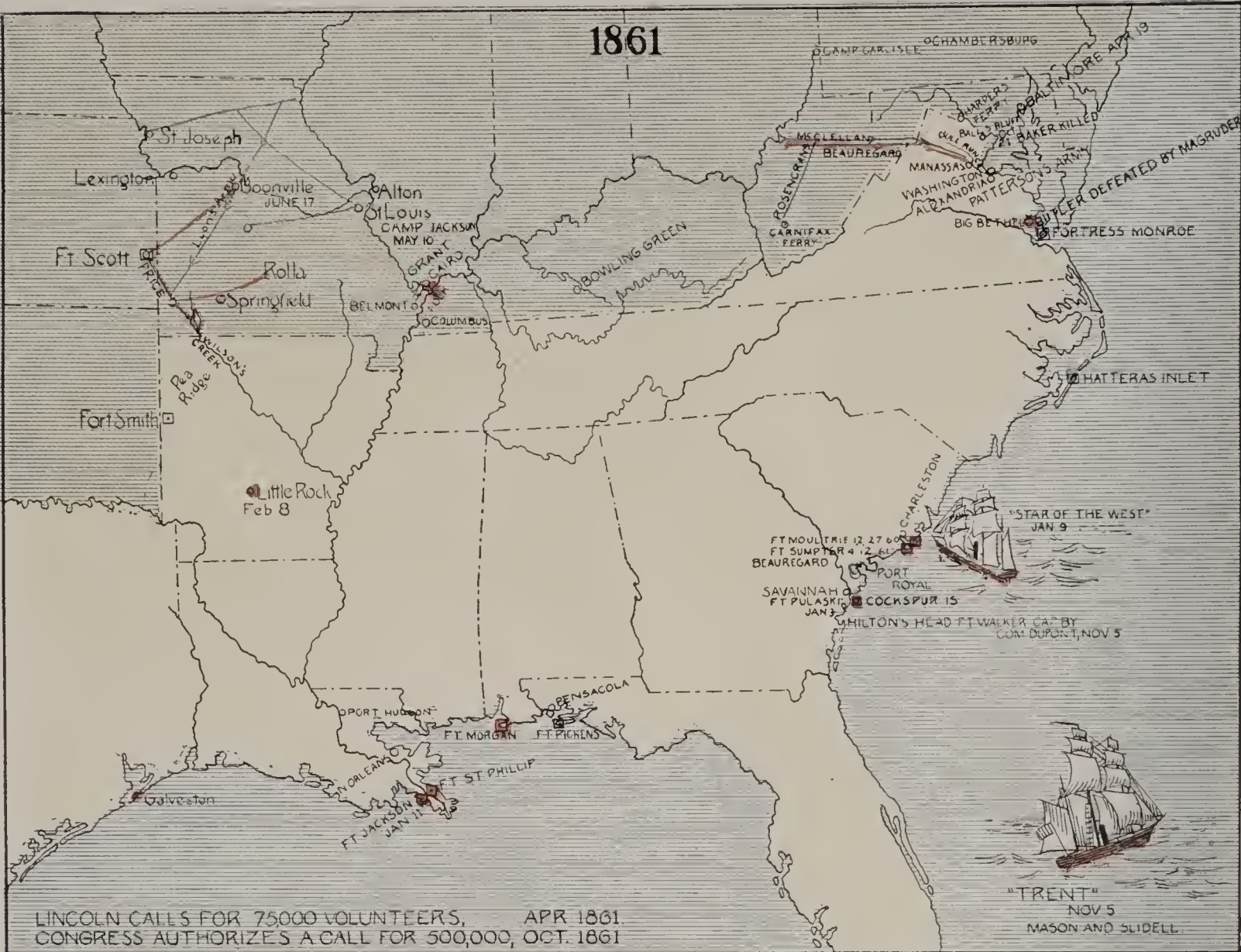
ADMINISTRATIONS.

	1849	1853	1857	1861	1869	1877	'81
PRES.	TAYLOR FILLMORE	PIERCE	BUCHANAN	LINCOLN JOHNSON	GRANT	HAYES	
MESSAGES		POPULAR SOVEREIGNTY	REVOLUTIONARY MESSAGE	EMANCIPATION PROC. AMNESTY	AUTOBIOGRAPHY		
CABINET	MEREDITH WEBSTER	MARCY DAVIS	CASS DIX	SEWARD CHASE McCULLOCH	FISH SHERMAN BREWSTER	EVARTS SHERMAN	
NO. OF MEMBERS	SENATE 62 HOUSE 237	SENATE 62 HOUSE 237	SENATE 66 HOUSE 243	SENATE 50 HOUSE 243	SENATE 74 HOUSE 293	SENATE 76 HOUSE 293	
PRES. OF SENATE	FILLMORE KING ATCHISON	KING	BRECKENRIDGE	HAMLIN FOSTER JOHNSON WADE	COLFAX WILSON	WHEELER	
SPEAKER OF HOUSE	COBB BOYD	BOYD BANKS	ORR PENNINGTON	GROW COLFAX	BLAINE KERR	RANDALL	
LEADERS	DOUGLAS DAVIS	CASS STEPHENS	SEWARD CAMERON	STEVENS MORRILL SUMNER CRITTENDEN	MORTON SCHURZ WILSON TRUMBULL	EDMONDS BLAND	
LAWS	OMNIBUS BILL	KANSAS-NE- BRASKA ACT	LAND GRANTS	INCOME TAX LAW CIVIL RIGHTS BILL	SALARY ACT	ANTI- CHINESE BILL	
CHIEF JUSTICE				CHASE		WAITE	
DECISIONS			DRED SCOTT DECISION				
WARS		BORDER WARFARE	J. BROWN'S RAID MORMONS	CIVIL WAR	MODOC SIOUX	NEZ PERCE	
INTERNATIONAL RELATIONS	CLAYTON- BULWER TREATY	TREATY WITH JAPAN	TREATY WITH CHINA	BURLINGAME TREATY	TREATY OF WASHINGTON	NEW CHINESE TREATY	
INDUSTRIAL PROGRESS	NICARAGUA CANAL TREATY	TYPE SETTING MACHINE	SLEEPING CAR ATLANTIC CABLE	REPEATING RIFLES GATTLING GUNS	FIRE EXTINGUISHER TELEPHONE CREMATORY	STEAM HEATING. PHONOGRAPH	
INTERNAL AFFAIRS	FUGITIVE SLAVE LAW	GADSDEN PURCHASE	SECESSION	ATLANTIC CABLE LAID ALASKA	PACIFIC RAILROAD. CHICAGO FIRE. WEATHER BUREAU	ELEC. LIGHT. LIFE SAVING STATIONS.	
NEW STATES	CALIFORNIA		MINNESOTA KANSAS OREGON	WEST VIRGINIA NEVADA NEBRASKA	COLORADO		
FOREIGN EVENTS	CUBAN REVOLUTION	OSTEND MANIFESTO	3-YEAR WAR IN MEXICO	FENIAN RAID IN CANADA SOUTH AMERICAN WARS	FRANCO-GERMAN WAR	FAMINE IN BRAZIL	

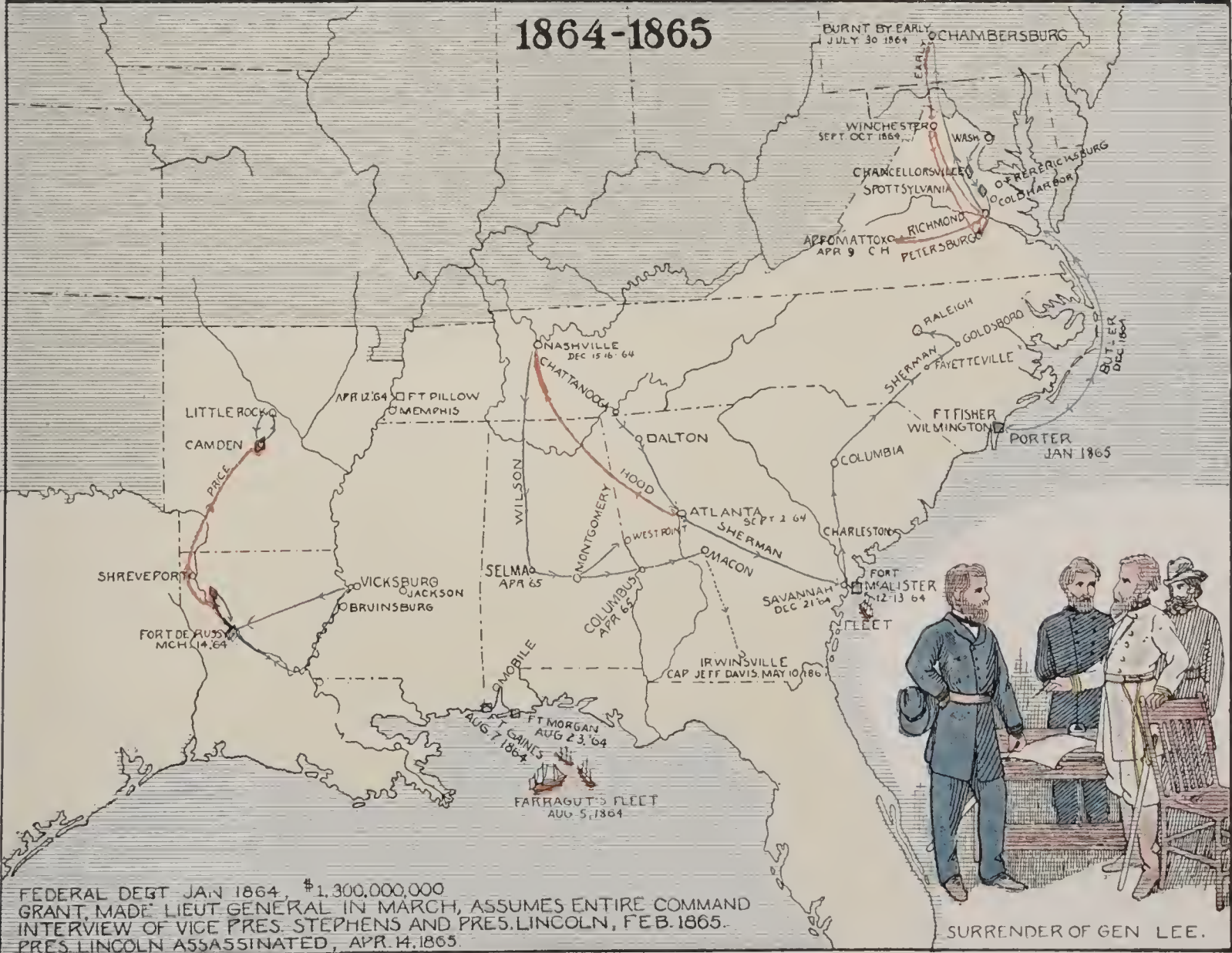
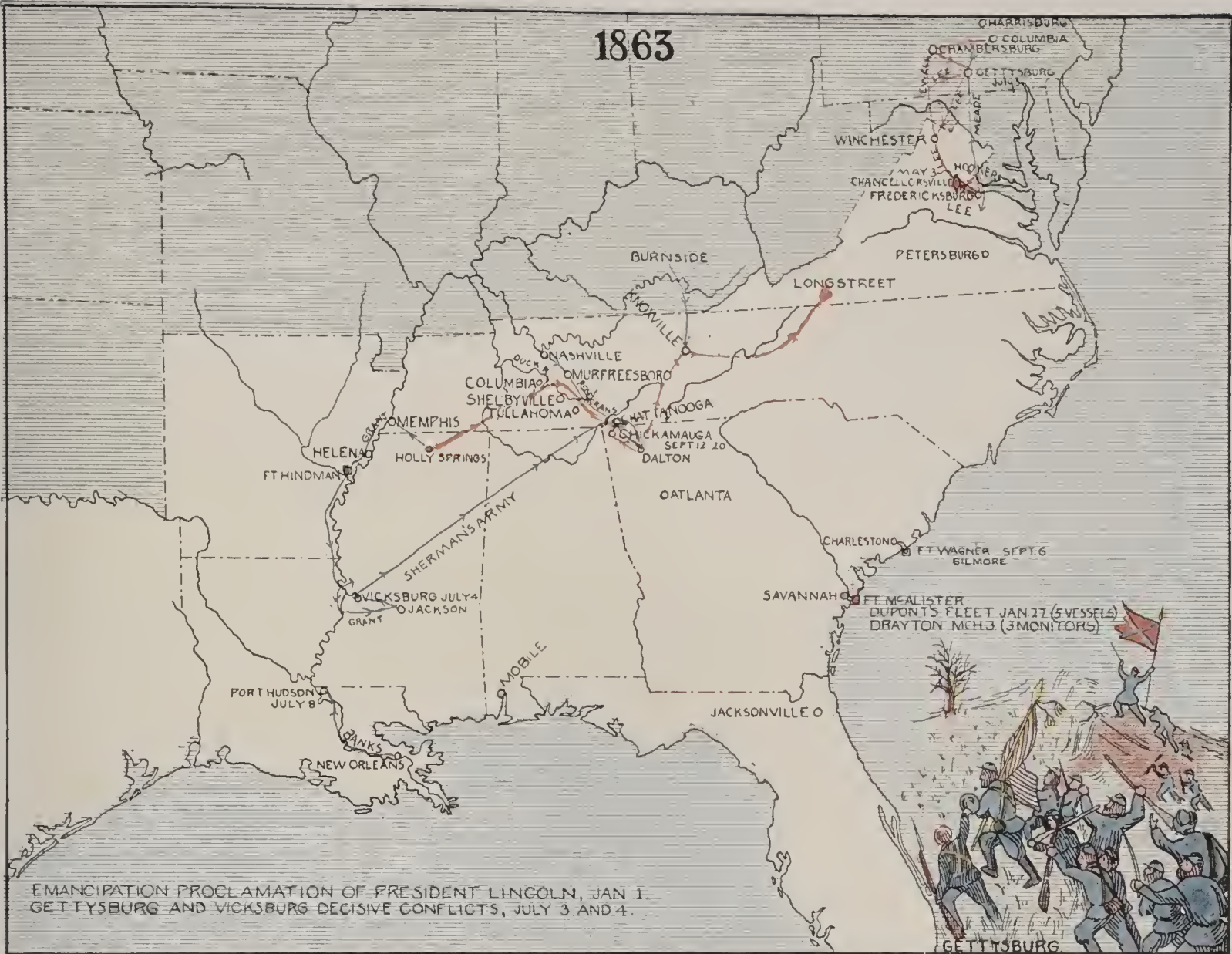
ADMINISTRATIONS.

	1881	1885	1889	1893	1897	1905	1909
PRES.	GARFIELD ARTHUR	CLEVELAND	HARRISON	CLEVELAND	McKINLEY	ROOSEVELT	TAFT
MESSAGES	CIVIL SERVICE		RECIPROCITY	VENEZUELA	PANAMA CANAL	TRUSTS	MONOPOLIES
CABINET	BLAINE LINCOLN	BAYARD FAIRCHILD	BLAINE ELKINS	OLNEY CARLISLE	ROOT WILSON	DAY HAY	TAFT ROOT KNOX MACVEAGH
NO OF MEMBERS	SENATE 76 HOUSE 332	SENATE 76 HOUSE 332	SENATE 88 HOUSE 357	SENATE 88 HOUSE 357	SENATE 90 HOUSE 386	SENATE 92 HOUSE 386	SENATE 92 HOUSE 391
PRES OF SENATE	ARTHUR DAVIS EDMUNDS	HENDRICKS	MORTON	STEVENSON	HOBART ROOSEVELT	FAIRBANKS	SHERMAN
SPEAKER OF HOUSE	KEIFER. CARLISLE		REED CRISP	REED	HENDERSON.	CANNON	CANNON CLARK
LEADERS	PENDLETON CONKLIN	LOGAN GORMAN	McKINLEY SHERMAN	WILSON HILL	DINGLEY WILLIAMS HANNA HOAR	LODGE TILLMAN	ROOSEVELT LAFOLLETTE
LAWS	CIVIL SERVICE CHINESE BILL LETTER POSTAGE	INS.COM ACT DAVE'S BILL PRES.SUCCESION	INTERNATIONAL COPYRIGHT LAW	SHERMAN LAW REPEALED WILSON BILL	CHINESE EXCLUSION BILL	PURE FOOD LAW MEAT INSP BILL	PAYNE-ALDRICH TARIFF ACT
CHIEF JUSTICE	WAITE	FULLER				FULLER	WHITE
DECISIONS				INCOME TAX	NORTHERN SECURITIES		TRUST CASES
WARS	APACHES CAPTURED	ANARCHIST RIOTS	SIOUX WAR	COAL STRIKES RY. STRIKES	SPANISH-AMERICAN PHILIPPINE	SPRINGFIELD RIOT	
INTERNATIONAL RELATIONS	TREATY WITH CHINA	EXTRAD.TREATY C-BAYARD TREATY	SAMOAN TREATY RECIP. TREATY		ARBITRATION TREATY HAY-PAUNCEFOTE TREATY	HAY-VARILLA TREATY	PEACE CONF. RUSSIAN TR
INDUSTRIAL PROGRESS	FLYING MACHINE		NATURAL GAS SILVER MINING	NIAGARA FALLS HARNESSED	LIQUIFIED AIR WIRELESS TELEGRAPHY	AEROPLANE	WAR AVIATION
INTERNAL AFFAIRS	DEATH OF GARFIELD	CHARLESTON EARTHQUAKE	JOHNSTOWN FLOOD	WORLD'S FAIR AT CHICAGO	BALTIMORE FIRE HAGUE PEACE CONFERENCE	PANIC 1907 PANAMACANAL	CENTRAL BANK
NEW STATES		WASH.MONT NO. AND SO DAKOTA	IDAHO WYOMING	UTAH		OKLAHOMA	ARIZONA NEW MEXICO
FOREIGN EVENTS		EXCLUSION ACT IN CHINA	BRAZIL REPUB BOXER REBEL	CUBAN REV	BOER WAR	RUSSO- JAPANESE WAR	ACCESSION GEOY OF ENG.

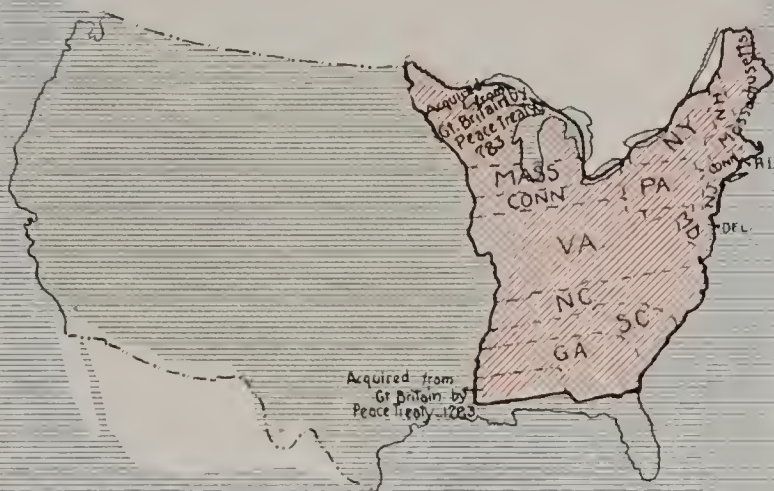
<div><div><div>FEDERALIST</div><div>ANTI-FEDERALIST</div><div>DEMOCRATIC-REPUBLICAN</div><div>WHIG</div><div>DEMOCRAT</div><div>REPUBLICAN</div></div><div>WHIG</div><div>ANTI-FEDERALIST</div><div>FEDERALIST</div></div>										
NO. OF ADMNS	PRESIDENTS	STATE	YEAR				TOTAL NO. OF ELVOTEREPTS	NO. OF VICE-PRESIDENTS	NO. OF STATES	
1	WASHINGTON	VA	1789			WASHINGTON 69	73	53	ADAMS 13	
			1793	CLINTON 50		WASHINGTON 132	135	105	ADAMS 15	
2	ADAMS	MASS	1797	JEFFERSON 68		ADAMS 71	138	106	JEFFERSON 16	
3	JEFFERSON	VA	1801	JEFFERSON 73		ADAMS 65	138	106	BURR 16	
			1805	JEFFERSON 162		PINCKNEY 14	176	142	CLINTON 17	
4	MADISON	VA	1809	MADISON 122	CLINTONIAN	PINCKNEY 47	176	142	CLINTON 17	
			1813	MADISON 128	PEACE PARTY	CLINTON 89	218	182	GERRY 18	
5	MONROE	VA	1817	MONROE 183		KING 34	221	183	TOMPKINS 19	
			1821	MONROE 231			235	187	TOMPKINS 23	
6	ADAMS J.Q.	MASS	1825	ADAMS 84	NATIONAL REPUBLICAN	CLAY 37	261	213	CALHOUN 24	
7	JACKSON	TENN		JACKSON 99		CRAWFORD 46				
			1829	JACKSON 178	NULLIFICATION	ADAMS J.Q. 83	261	213	CALHOUN 24	
8	VAN BUREN	NY	1833	JACKSON 219	ANTI-MASON	CLAY 49	288	240	VAN BUREN 24	
			1837	VAN BUREN 170	LOCO FOCO	HARRISON 73	294	242	JOHNSON 25	
9	HARRISON	OHIO	1841	VAN BUREN 60	BARN BURNERS	HARRISON 234	294	242	TYLER 26	
10	TYLER	VA								
11	POLK	TENN	1845	POLK 170	CONKERS	CLAY 105	275	223	DALLAS 26	
12	TAYLOR	LA	1849	CASS 127	LIBERTY	TAYLOR 163	290	230	FILLMORE 30	
13	FILLMORE	NY								
14	PIERCE	NH	1853	PIERCE 254	FREE DEMOCRATS	SCOTT 42	296	234	KING 31	
15	BUCHANAN	PA	1857	BUCHANAN 174	AMERICAN CONSTITUTIONAL UNION	FREMONT 114	296	234	BRECKENRIDGE 31	
16	LINCOLN	ILL	1861	DOUGLAS 39		LINCOLN 180	303	237	HAMLIN 33	
17	LINCOLN JOHNSON	TENN		BRECKENRIDGE 72						
			1865	McCLELLAN 21	K CONFEDERATE	LINCOLN 212	314	183	JOHNSON 36	
18	GRANT	ILL	1869	SEYMOUR 80	LIBERAL	GRANT 214	317	226	COLFAX 37	
			1873	HENDRICKS 42	GRANGE	GRANT 286	366	292	WILSON 37	
19	HAYES	OHIO	1877	TILDEN 184	TEMPERANCE	HAYES 185	369	293	WHEELER 38	
20	GARFIELD	OHIO	1881	HANCOCK 155	LABOR PARTY	GARFIELD 214	369	293	ARTHUR 38	
21	ARTHUR	NY								
22	CLEVELAND	NY	1885	CLEVELAND 219	PROHIBITION	BLAINE 182	401	325	HENDRICKS 38	
23	HARRISON	IND	1889	CLEVELAND 168	MUGWUMP	HARRISON 233	401	332	MORTON 38	
24	CLEVELAND	NY	1893	CLEVELAND 277		HARRISON 145	444	356	STEVENSON 44	
25	McKINLEY	OHIO	1897	BRYAN 176	PEOPLES	McKINLEY 271	447	357	HOBART 45	
26	McKINLEY ROOSEVELT	NY	1901	BRYAN 155		McKINLEY 292	447	357	ROOSEVELT 45	
			1905	PARKER 140	SOCIALIST	ROOSEVELT 336	476	386	FAIRBANKS 45	
27	TAFT	OHIO	1909	BRYAN 162		TAFT 321	483	391	SHERMAN 46	



CIVIL WAR.



CIVIL WAR.



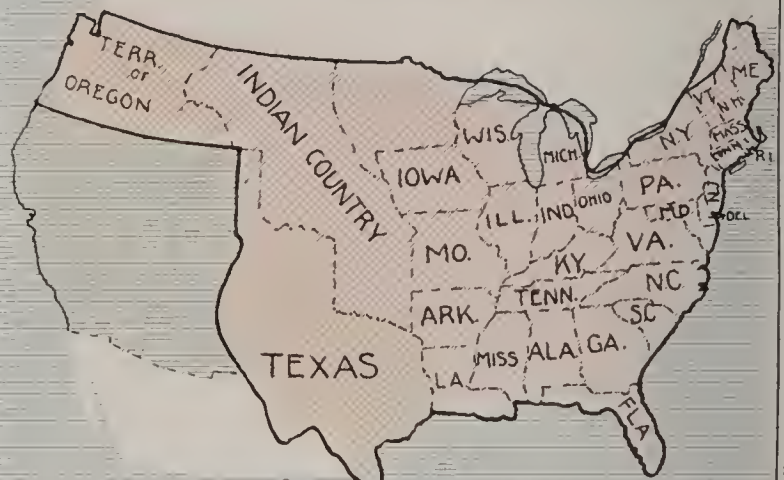
1. CLOSE OF THE REVOLUTIONARY WAR, 1783.



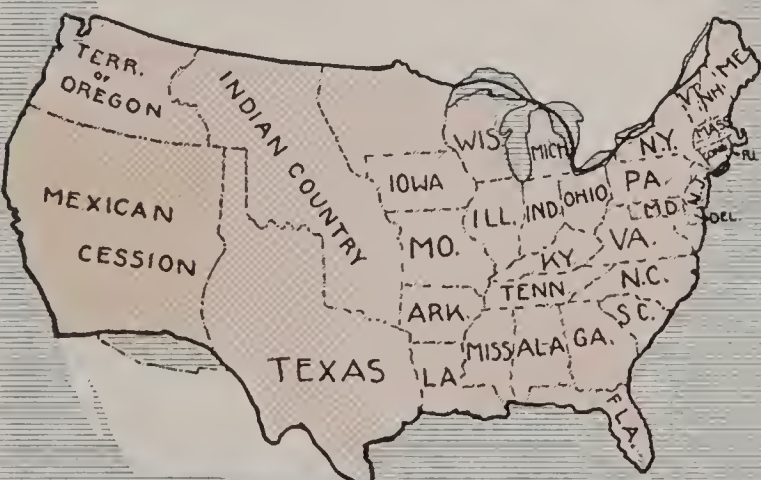
2. THE LOUISIANA PURCHASE, 1803.



3. THE FLORIDA PURCHASE, 1819.



4. TEXAS 1845 & OREGON, 1846



5. THE MEXICAN CESSION, 1848.



6. THE GADSDEN PURCHASE, 1853.



7. ALASKA 1867.



8. ISLAND POSSESSIONS, 1898.

TERRITORIAL GROWTH OF THE UNITED STATES.

STATE	FIRST SETTLEMENT	DATE	INCIDENT
Maryland	St. Mary's	1634	Calvert develops grant.
Massachusetts . . .	Plymouth	1620	Landing of Pilgrim Fathers.
Michigan	Sault Ste. Marie..	1668	Jesuit missions.
Minnesota	Fort Snelling	1819	Built by Lieut. Pike.
Mississippi	Biloxi	1699	French build fort.
Missouri	St. Louis	1764	Spanish settlement.
Montana	Manuel Lisa	1807 (1861)	Gold discoveries.
Nebraska	Bellevue	1805-10	Free trading post.
Nevada	Genoa	1849	Built by Mormons.
New Hampshire {	Dover	1623	Land grants.
	Portsmouth		
New Jersey	Elizabethtown . . .	1617 (1664)	Dutch, Swedes, English.
New Mexico	Santa Fe	1582	Espejo founds a settlement.
New York	New York	1614	Formerly New Amsterdam.
North Carolina . . .	Albemarle Sd	1653	Virginia colonists.
North Dakota	Pembina	1859	French Canadians found.
Ohio	Marietta	1788	Territorial government set up.
Oklahoma	Guthrie	1889	Bought from the Indians.
Oregon	Astoria	1811	American Fur Company.
Pennsylvania	Chester	1643	Settled by Swedes.
Rhode Island	Providence	1636	Roger William seeks freedom.
South Carolina . . .	Charleston	1670	Settled by the English.
South Dakota	Sioux Falls	1877 (1856)	Opening up new lands.
Tennessee	Wautauga	1769	Settled from N. C. and Va.
Texas	San Antonio	1714-16	Spanish mission.
Utah	Salt Lake City . . .	1847	Mormon Settlement.
Vermont	Bennington	1749	Trading post.
Virginia	Jamestown	1607	Settlement by London Com- pany.
Washington	Walla Walla	1836	Founded by immigrants.
West Virginia	(Northeast part) . .	1746	Grant to Lord Fairfax.
Wisconsin	Green Bay	1634 (1745)	Jesuit Mission.
Wyoming	Laramie Forks . . .	1834	Fort and trade.

MINOR WARS OF THE UNITED STATES

INTER-COLONIAL WARS—WAR OF 1812—MEXICAN WAR—SPANISH-AMERICAN WAR
—SMALL INTER-COLONIAL WARSI. KING WILLIAM'S WAR (War of the
League of Augsburg), 1689-97.

1. Causes.

- Rivalry of France and England.
- Louis XIV's support of the English Stuarts.

2. Parties in the New World.

- French, supported by the Abenaki Indians.
- English, supported by the Iroquois.

3. Campaigns.

- French massacres at Schenectady; Salmon Falls, Mass.; Casco Bay, Me., 1690.

- English capture of Acadia and Port Royal; attack upon Quebec.

- Recapture of Acadia by the French, 1691.

4. First Colonial Congress, March, 1690.

- Cause: massacre at Schenectady.
- Colonies represented: Massachusetts, Plymouth, Connecticut, and New York.
- Result: authorization of Colonial army for invasion of Canada.



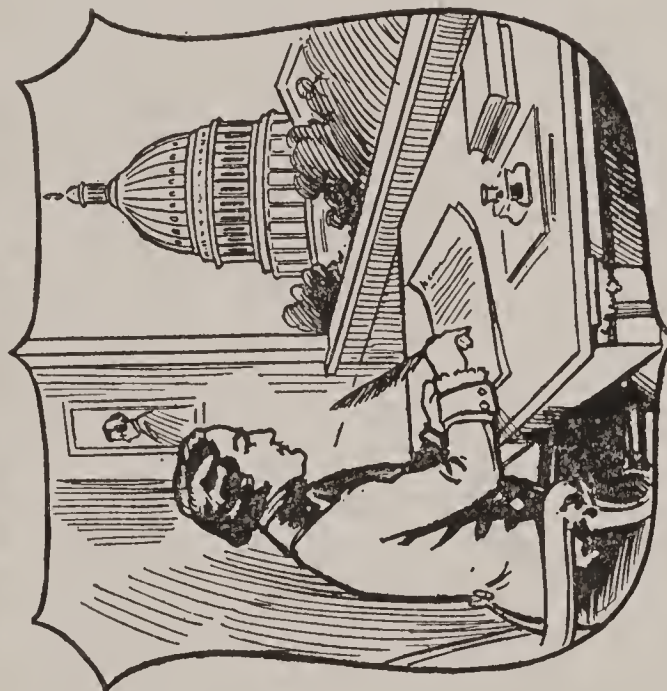
Fulton's Steamboat



"Right of Search"
Claimed by British

THOMAS JEFFERSON

1809



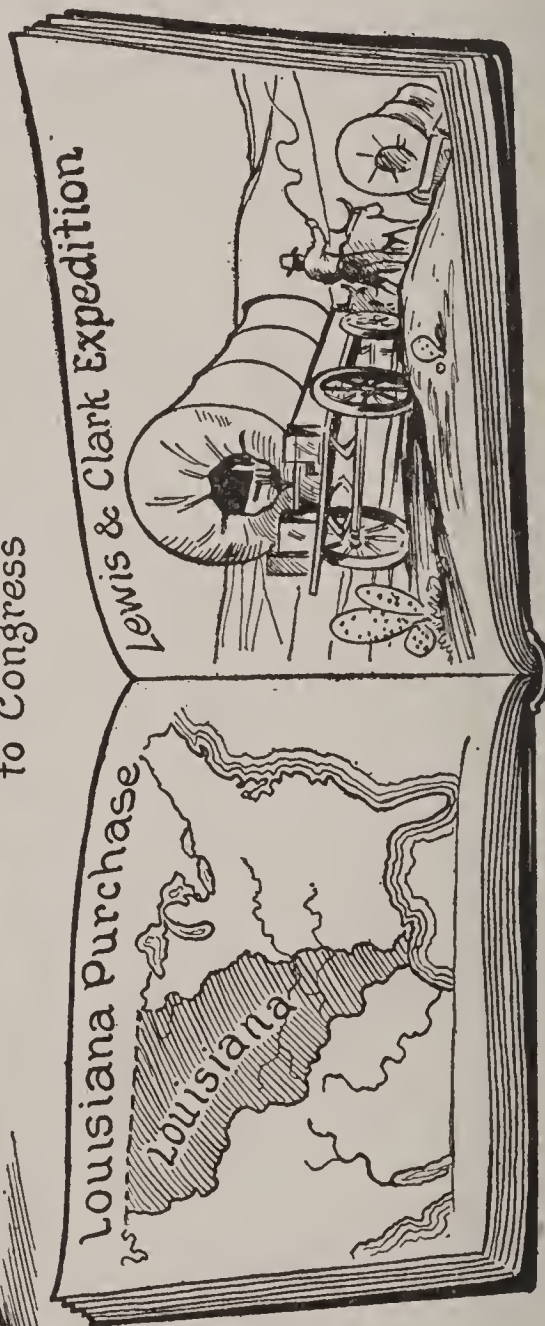
First Written Message
to Congress



War with Tripoli



Slave Trade
Abolished



Ketchum.

5. By the Treaty of Ryswick, 1697:

- a. France secured Nova Scotia and the coast from Maine to Labrador, Hudson Bay, Canada, and the Mississippi Valley.
- b. England secured the territory south from the St. Croix River.

II. QUEEN ANNE'S WAR (War of the Spanish Succession), 1702-13.

1. Causes.

- a. Rivalry between France and England.
- b. Louis XIV's attempt to rule Europe.

2. Campaigns.

- a. French and Indian attacks upon the frontier (Saco and Casco); massacre at Deerfield, Mass., 1703.
- b. Petit Havre and St. John's, N. F., destroyed by French and Indians, 1705.
- c. English captured Port Royal and changed the name to Annapolis, 1710.

3. By the Treaty of Utrecht, 1713:

- a. England received Hudson Bay territory, Newfoundland, and Nova Scotia, and retained Port Royal (Annapolis).

III. KING GEORGE'S WAR (War of Austrian Succession), 1744-48.

1. Causes.

- a. Extension of European war to the New World.
- b. Desire of French to destroy English fisheries.

2. Campaigns.

- a. Burning of settlement on island of Canso by the French, 1744; captives carried to Louisburg.
- b. Capture of Louisburg by the English, 1745.

3. By the Treaty of Aix la Chapelle: The captured territory was restored to the French (Oct., 1748).

IV. FRENCH AND INDIAN WAR (Seven Years' War), 1755-63.

1. Causes.

- a. Boundary disputes arising from Treaty of Utrecht concerning Acadia.
- b. Struggle for control of the Ohio Valley and the new continent.

2. Commanders.

- a. French: Dieskau, Montcalm.
- b. English: Washington, Braddock, Shirley, Loudoun, Abercrombie, Bradsstreet, Amherst, Johnson, Wolfe.

3. Events.

- a. Failure of Washington's mission to Fort Le Boeuf.
- b. Washington's defeat at Fort Necessity, July, 1754.
- c. Braddock's defeat in expedition against Fort Duquesne, July, 1755.
- d. Dieskau's defeat in Battle of Lake George, Sept., 1755.
- e. Removal into exile of French Acadians.
- f. Capture of Oswego and Fort William Henry by French under Montcalm, 1756-57, giving them possession of Lakes Champlain and George.
- g. Capture of Louisburg by English under Amherst, July, 1758.
- h. Storming of Ticonderoga by Abercrombie and his failure, July, 1758.
- i. Capture of Fort Frontenac by Bradstreet, Aug., 1758.
- j. Capture of Fort Duquesne (Pittsburgh), Nov., 1758.
- k. Capture of Quebec by Wolfe, Sept., 1759.
- l. Surrender of Niagara, Ticonderoga, and Crown Point.
- m. Surrender of Montreal, Sept., 1760.

4. By the Treaty of Paris, 1763:

- a. Nova Scotia, Canada, Cape Breton Island, and the country east of the Mississippi River (excepting New Orleans) were ceded to England by France.

1817 ADMINISTRATION 1825

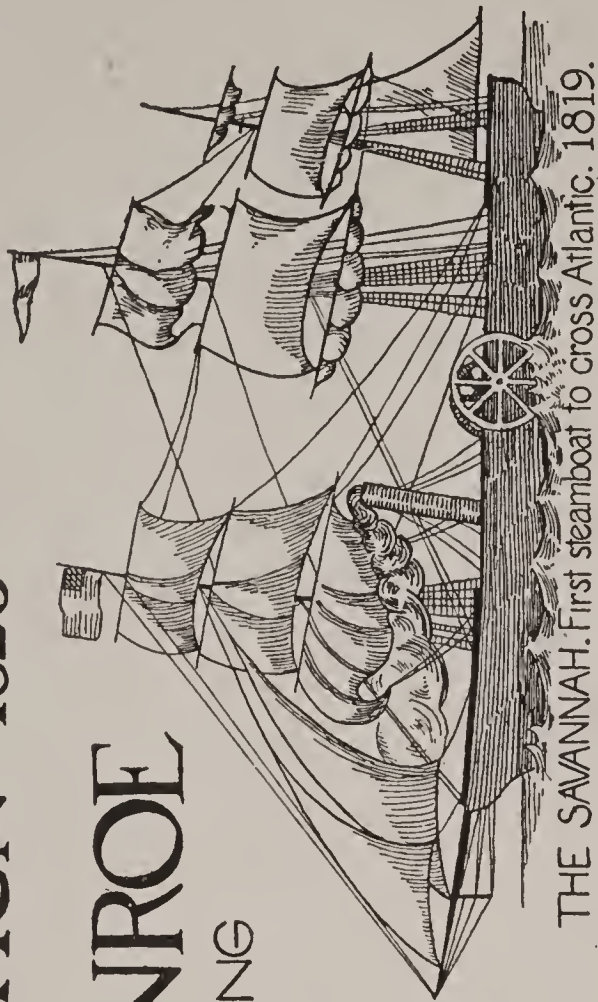
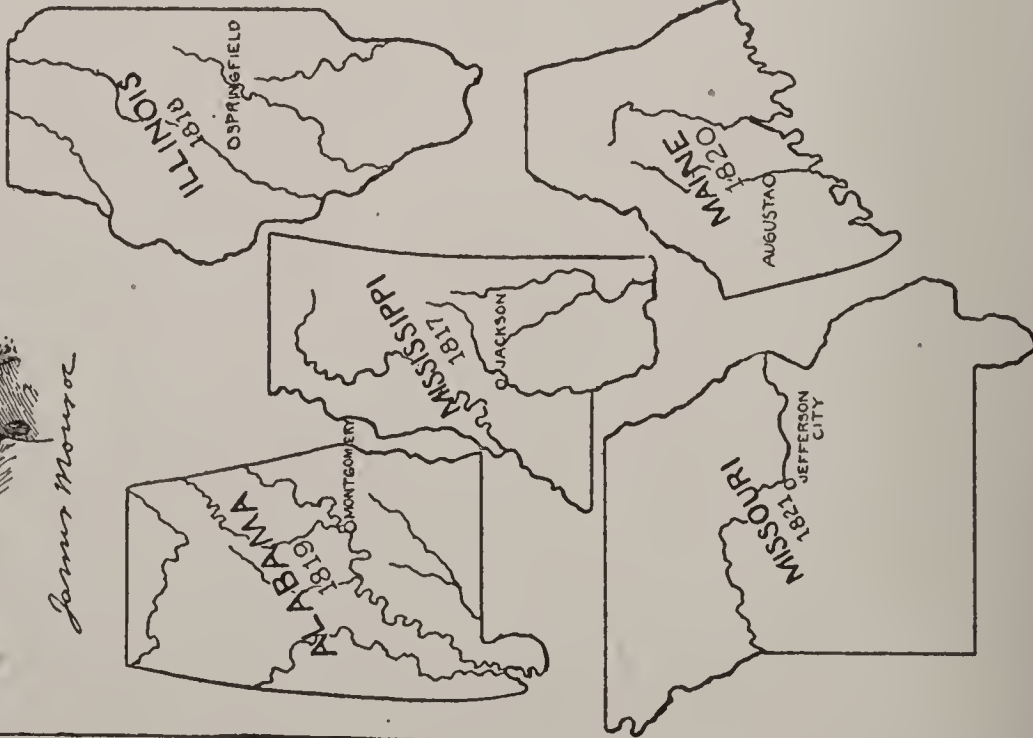
OF JAMES MONROE

ERA OF GOOD FEELING

D.D. TOMPKINS
VICE PRES.



FIVE
STATES
ADMITTED



THE MONROE DOCTRINE

1823

THAT NEITHER SOUTH NOR NORTH AMERICA SHOULD HEREAFTER BE OPEN TO EUROPEAN COLONIZATION, AND THAT AN ATTEMPT TO VIOLATE THIS PROPOSITION WOULD BE CONSIDERED AN ACT OF HOSTILITY TO THE UNITED STATES.

FIRST SEMINOLE WAR	1817
LAFAYETTE'S VISIT	1824
MONROE'S JOURNEY NORTH	1817
OCCUPATION OF OREGON	1818
CANADIAN BOUNDARY	1818
FOURTH CENSUS	1820
PENSION LAWS	1823
PROTECTIVE TARIFF	1824

- b. Florida was ceded to England by Spain.
- c. In exchange England restored Havana and Manila to Spain.

- d. France ceded to England all her territory west of the Mississippi River.
- e. Some West Indian islands were returned to France.

SMALL INTER-COLONIAL WARS

- 1. War between the Dutch and the Swedes, 1648.
- 2. War between the English and the Dutch, 1664.
- 3. War between the English and the Spanish, 1739-43.

WAR OF 1812. SECOND WAR FOR INDEPENDENCE (1812-1814)

I. CAUSES.

- 1. British orders in Council.
- 2. Impressment of American seamen.
- 3. Attack upon the *Chesapeake* by the *Leopard*, 1807 (claiming the right of search).
- 4. British intrigues with the Indians.
- 5. Berlin and Milan decrees.
- 6. Blockade of American ports.
- 7. Destruction of American commerce.
- 8. War hawks in Congress (Clay, Calhoun, Lowndes, etc.).

II. EVENTS.

- 1. Formal declaration of war, June 18, 1812.
- 2. Hull's invasion of Canada and surrender at Detroit, August, 1812.
- 3. Battle of Queenstown Heights.
- 4. American naval victories: the *Alert* captured by the *Essex*; the *Guerriere* captured by the *Constitution*; the *Frolic* defeated by the *Wasp*; the *Macedonia* defeated and captured by the *United States*; the *Java* defeated by the *Constitution*; the *Peacock* sunk by the *Hornet*.
- 5. The *Chesapeake* destroyed by the *Shannon*; death of "Don't give up the ship" Lawrence.

- 6. Harrison's northwestern campaign.
- 7. Perry's victory on Lake Erie.
- 8. Burning of Toronto and capture of Fort George.
- 9. Failure of expedition against Montreal.
- 10. British blockade of Atlantic coast, 1813-14.
- 11. Battles of Lundy's Lane and Fort Erie.
- 12. Burning of Washington, 1814.
- 13. McDonough's naval victory at New Orleans, Jan., 1815.
- 14. Jackson's defeat of Pakenham at New Orleans, Jan. 8, 1815.

III. BY THE TREATY OF GHENT, 1814:

- 1. Restoration of captured property by both parties was agreed to.
- 2. The fixing of the boundary line between the United States and British possessions was to be left to a commission.

IV. RESULTS.

- 1. Respect for the ability of the United States government to defend its interests.
- 2. Confidence of the people of the United States in their fighting qualities.
- 3. A feeling that the Union was strong and worthy of trust.

WAR WITH MEXICO (1845-1848)

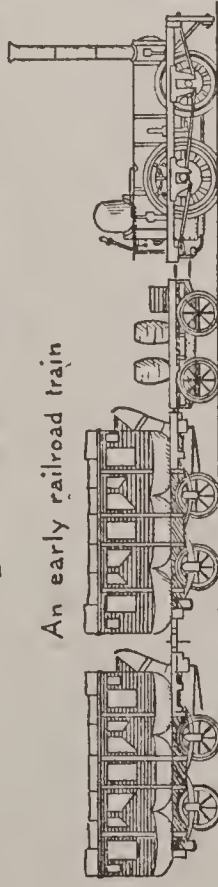
I. CAUSES.

- 1. Annexation of Texas by the United States, 1845.
- 2. Disputes concerning the western boundary of Texas.
- 3. Mexico's failure to pay all the arbitration claims of 1839.

II. EVENTS.

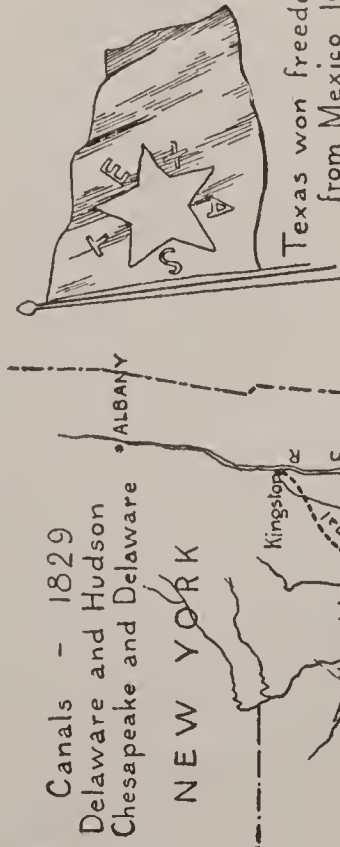
- 1. Encounters between American forces and Mexicans at Palo Alto (May 8) and Resaca de la Palma (May 9).
- 2. Formal declaration of war by Congress, May 13, 1846.

1829 JACKSON'S ADMINISTRATION 1837



An early railroad train

Peter Cooper's locomotive on the Baltimore and Ohio 1829
 First steam passenger railway begun between Charleston and Savannah 1830
 Freight line completed - Philadelphia to Pittsburgh - built by the state - Partly by canal-by horse railroad - hoisting over the Alleghany mountains by stationary engines 1831



Canals - 1829
 Delaware and Hudson
 Chesapeake and Delaware

Texas won freedom from Mexico 1836

Bread riots of New York City

Canal travel



Andrew Jackson met by a Mississippi reception committee at Natchez January, 8th, 1828

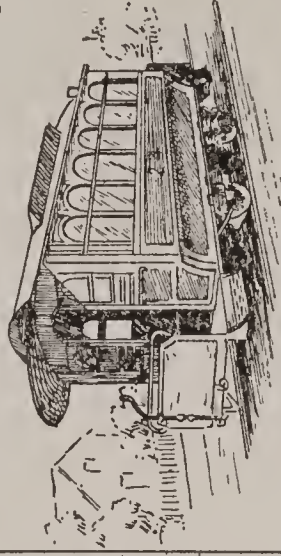
Introduction of "spoils system"
 Webster Hayne Debate
 Tariff bill modifying that of 1828-1832
 Nullification Act of South Carolina 1832
 Force bill 1832
 Compromise Tariff 1833
 Jackson vetoes 2nd Nat. Bank bill 1833
 Removal of Deposits 1833
 National Debt paid off 1835
 Jackson issued "Specie Circular" 1836
 Turner's Insurrection 1831
 Garrison mobbed in Boston 1835
 Gag resolution 1836

Great Britain opened West Indian and South American ports to U.S. 1830
 Turkey opened Black Sea to U.S. ships 1830



Fort Dearborn

Chicago founded at Fort Dearborn 1830
 Mormon church established by Joseph Smith 1830
 First astronomical telescope in America - at Yale 1830
 Gas used for lighting streets of Philadelphia 1836
 Galvanized iron - Dr. John Revere 1829
 Electric apparatus for producing sound at a distance 1831



First American street carline built in New York from the city hall to fourteenth street



The first use of friction matches

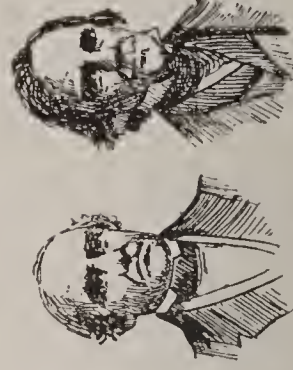


Osceola

Black Hawk War 1833
 Seminole War 1835

Publication of the Liberator

McCormick Harvester 1831



Webster

Clay

3. Invasion of New Mexico by General Kearney, and of California by Commodore Stockton and Captain Fremont.
4. Victories by Taylor at Monterey, Sept. 24, 1846, and Buena Vista, Feb. 23, 1847.
5. Vera Cruz taken by Gen. Winfield Scott, March 27, 1847.
6. Capture of the city of Mexico by General Scott, Sept. 15, 1847. (U. S. Grant and R. E. Lee were officers under Scott.)

NOTE.—Out of this territory were afterwards constructed the states of California, Nevada and Utah, and parts of Arizona, Colorado, New Mexico and Wyoming.

III. BY THE TREATY OF GUADALUPE HIDALGO, Feb. 2, 1848:

1. \$15,000,000 was to be paid to Mexico by the United States.
2. The boundary line between the United States and Mexico was fixed.
3. "California" and "New Mexico" were ceded to the United States.
4. The United States assumed the spoliation claims of the citizens of Mexico.

SPANISH-AMERICAN WAR, 1898

I. CAUSES.

1. Indirect—Spanish government in Cuba.
2. Immediate — Destruction of the *Maine*, Feb. 15, 1898.

II. PRELIMINARY MEASURES.

1. Voting of \$50,000,000 by Congress "for national defense."
2. Recognition of Cuban independence by Congress, April 19.
3. Ultimatum to Spain, April 20.
4. Formal declaration of war, April 25.

III. EVENTS OF THE WAR.

1. Battle of Manila Bay, P. I., with destruction of Spanish fleet by Admiral Dewey, May 1, 1898.
2. Santiago campaign.
 - a. Battles of Las Guasimas, Caney, and San Juan Hill, Cuba.
 - b. Destruction of Cervera's fleet by Admiral Sampson and Commodore Schley, July 3.

c. Surrender of Santiago de Cuba to Gen. Shafter, July 14-17.

3. Porto Rican campaign and the welcome of Porto Ricans to American troops.
4. Surrender of Manila, Aug. 13.

IV. BY THE TREATY OF PARIS, 1898:

1. Cuba was to be free and independent.
2. Porto Rico was ceded to the United States.
3. The Philippine Archipelago and the Island of Guam, both in the Pacific, came into the possession of the United States.
4. Spain lost the last of her American Colonial possessions.
5. The United States agreed to pay Spain the sum of \$20,000,000.

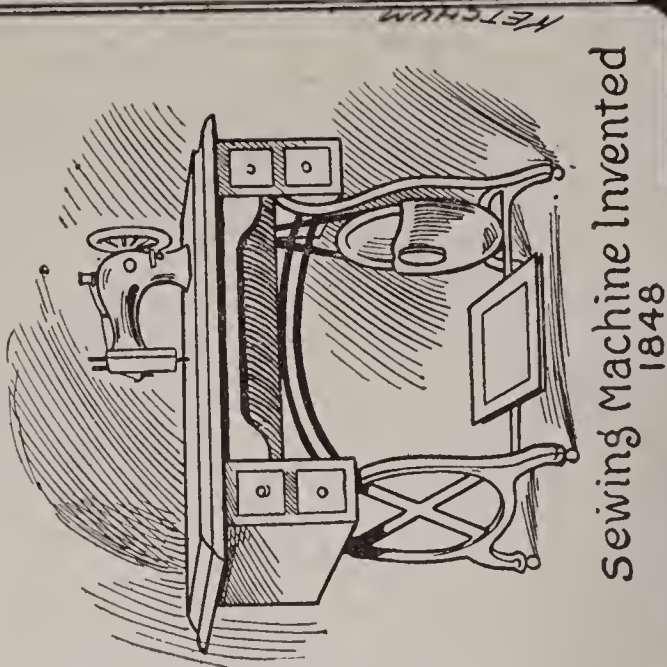
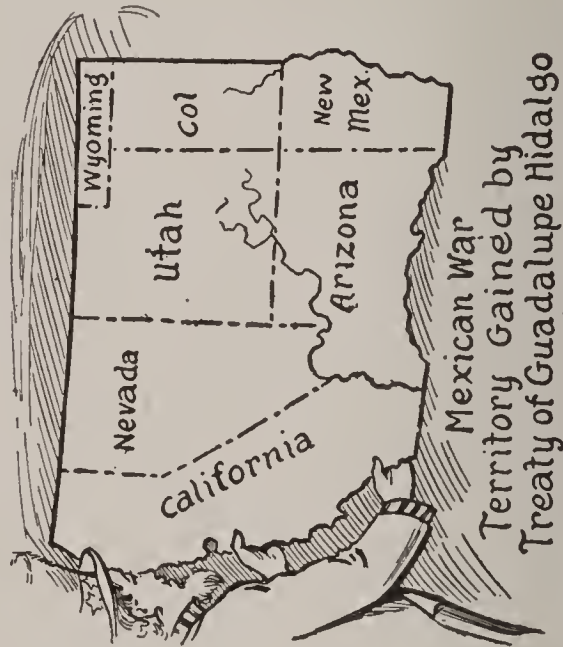
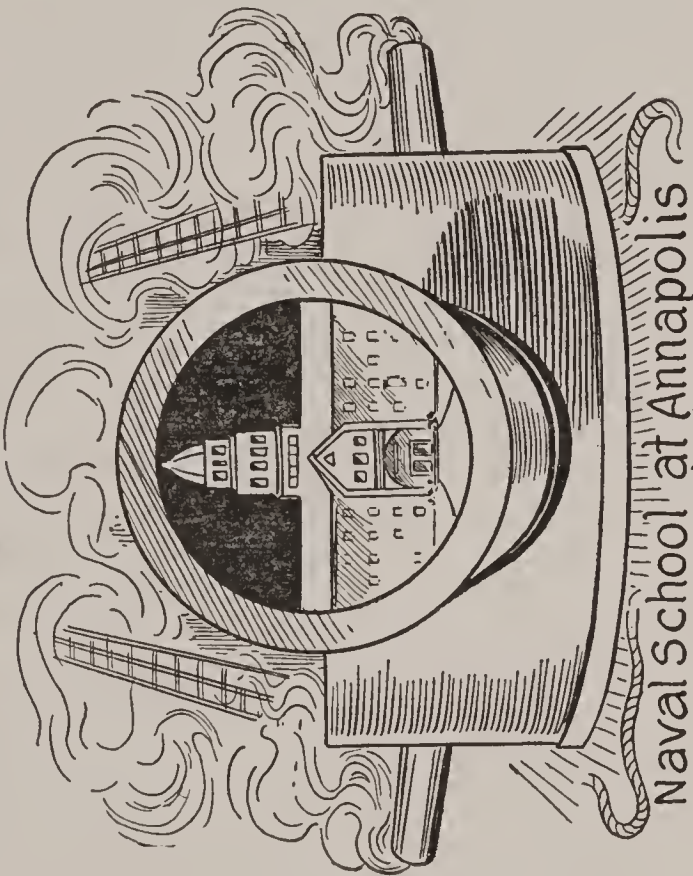
V. RESULTS.

1. The North and the South united against a common foe.
2. New problems in administration face the United States.



JAMES K. POLK

1845-1849





SLAVERY

Slavery had its origin in war. The captive was frequently regarded and treated as the property of the captor. The owner was often allowed the power of life and death over his slave. In many countries the slave was used as a domestic; in some lands he was taught business or he served in the useful trades; and in some cases great liberties were allowed slaves under certain restrictions.

But slavery in America, as in certain countries in Asia and Africa, had an entirely different origin and purpose. In the new world the institution owed its origin to greed and avarice and was often attended with great cruelty. The design here is not to discuss the subject, but to present in outline a brief history of the origin, development, and final extinction of negro slavery in the United States.

I. ITS INTRODUCTION.

1. The Spaniards, under suggestion of Las Casas, bring slaves for their mines and plantations in the New World.
2. The English find the trade in slaves profitable. (Sir John Hawkins.)
3. Various nations engage in the trade—especially with the new American colonies.
4. First negro slaves brought to the new world by the Portuguese in 1503. Sold in San Domingo.
5. First negro slaves in the colonies bought in Virginia from a Dutch man-of-war in 1619.
6. New England and New York vessels largely engaged in the trade in the 17th century, with headquarters in Rhode Island.
7. Recognized by Virginia in 1640.
8. A monopoly of the slave trade secured by England (Treaty of Utrecht, 1713).
9. Slavery general in the colonies, both North and South, about the time of this treaty. (Invention of cotton gin makes slavery very profitable.)

II. IDEAS AND INCIDENTS FAVORING THE EXPANSION OF SLAVERY.

1. General ideas:

- a. The idea that Christianity justified enslaving infidels or pagans.
- b. The notion that a slave is legal property strengthened by legislation in the colonies making it lawful to transfer slaves.
- c. The desire for the profit coming from capturing negroes in Africa and selling them as slaves.
- d. The evident value of slaves in cultivating crops, as cooks, as general house servants, etc.
- e. The recognition of the institution of slavery by the United States Constitution. (Art. I, Secs. 2 and 9; Art. IV, Sec. 2.)

2. Incidents favoring expansion.

- a. The invention of the cotton gin by Eli Whitney in 1794. (Cotton production, 1800, was 210,000 bales; in 1830 it was 1,038,847 bales.)

"That Government of the People,
by the People
for the People, and by the People
shall not perish from the Earth"

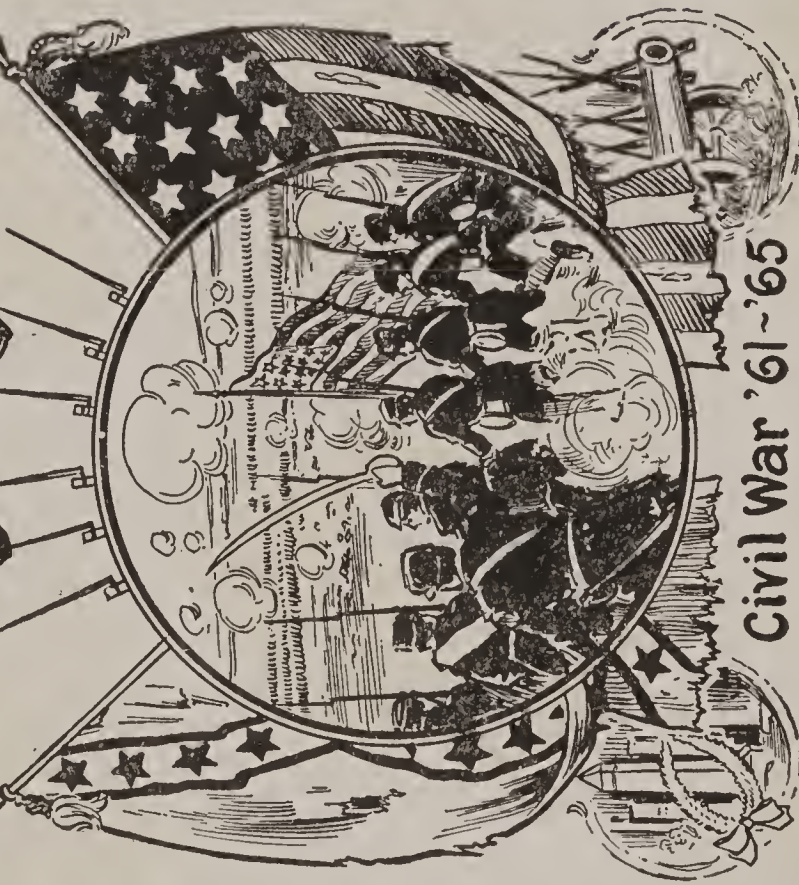
ABRAHAM LINCOLN

1861

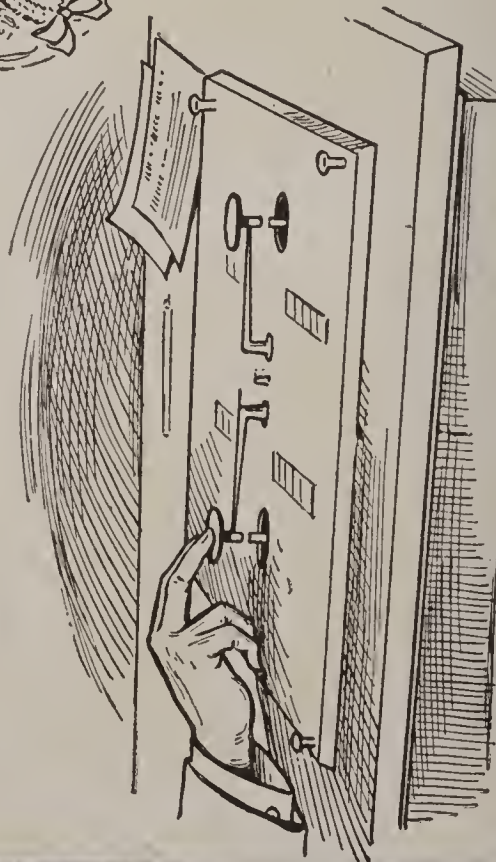
1865



HOMESTEAD LAW 1861



Civil War '61-'65

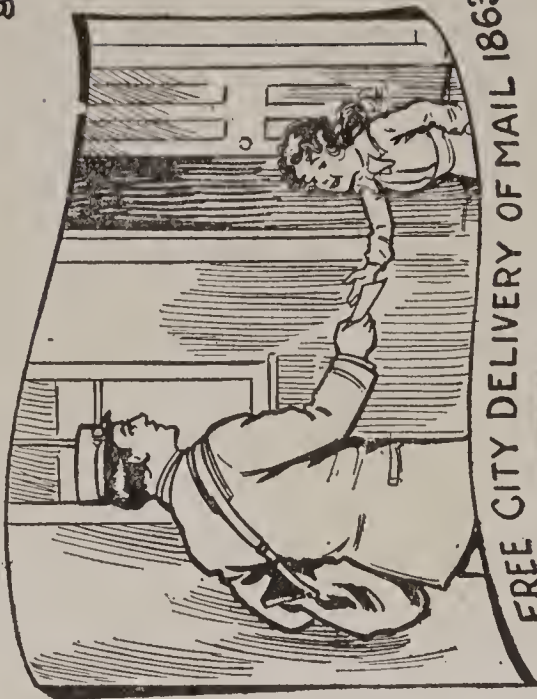


TELEGRAPH AUTHORIZED 1862

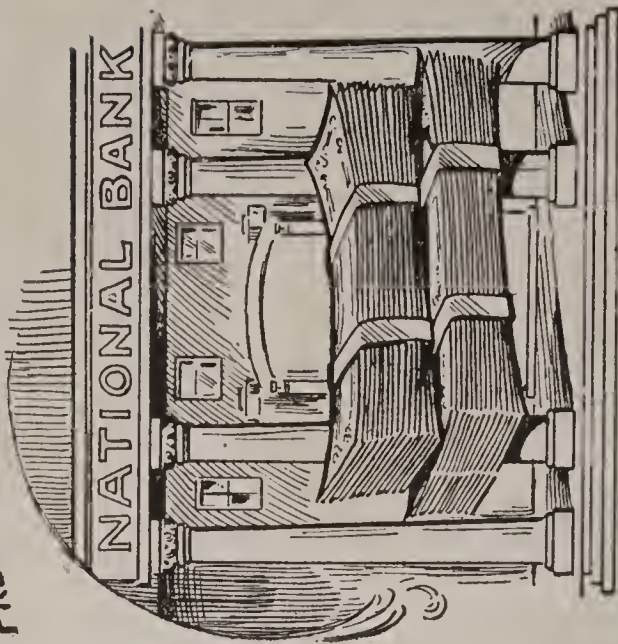
POSTAL MONEY ORDER SYSTEM
1864

BUREAU OF AGRICULTURE
FOUNDED 1862

EMANCIPATION PROCLAMATION
1863



FREE CITY DELIVERY OF MAIL 1863



NATIONAL BANKS FOUNDED 1863
FIRST ISSUE OF GREENBACKS 1862

Ketchum



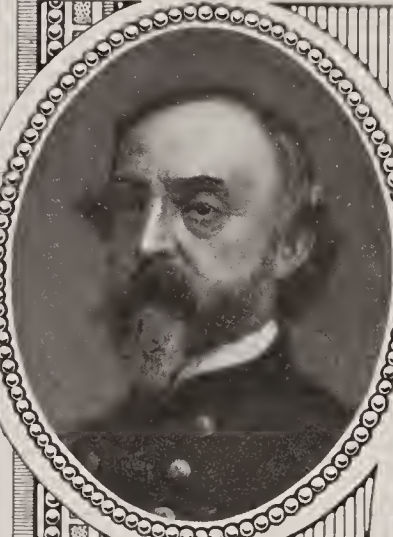
Geo. B. McCLELLAN



WM. T. SHERMAN



Jno. M. SCHOFIELD



Geo. G. MEADE



ULYSSES S. GRANT



JOSEPH HOOKER



Geo. H. THOMAS



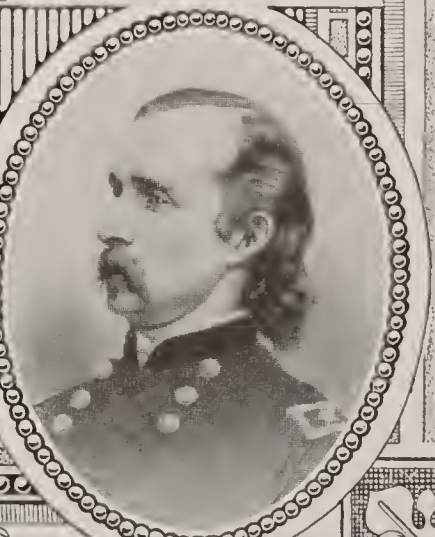
OLIVER O. HOWARD



WM. S. HANCOCK



PHILIP SHERIDAN



Geo. A. CUSTER

UNION GENERALS



JOHN B. HOOD



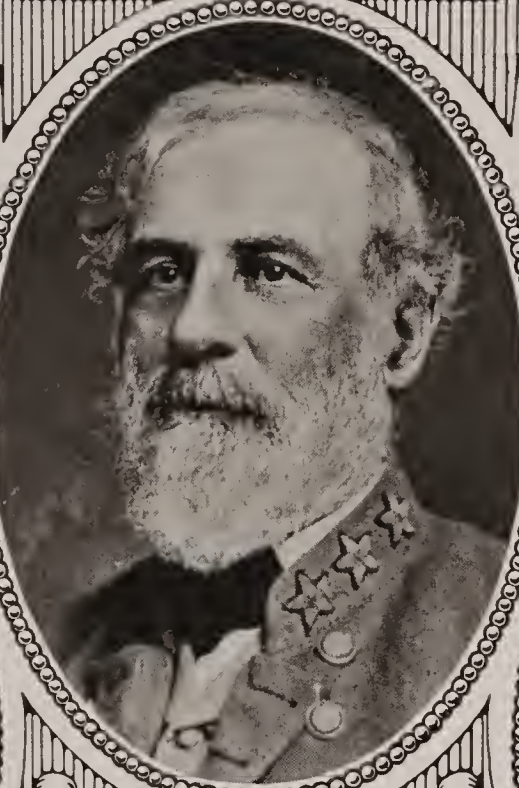
THOMAS J. JACKSON



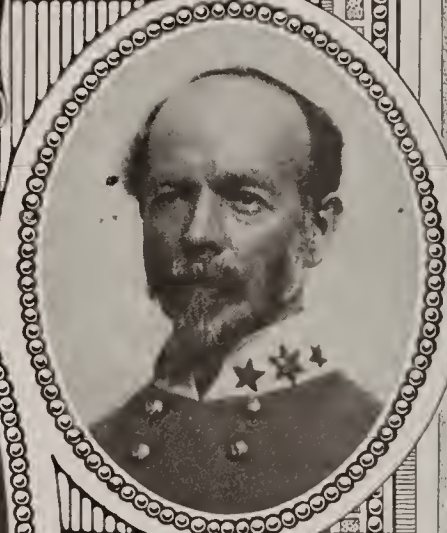
PIERRE G.T. BEAUREGARD



JAMES LONGSTREET



ROBERT E. LEE



JOSEPH E. JOHNSTON



JOHN B. GORDON



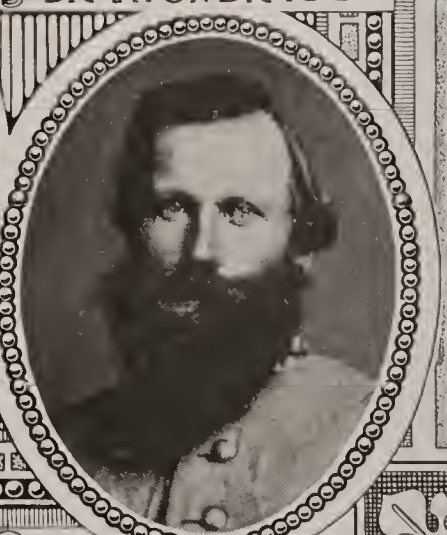
BRAXTON BRAGG



GEORGE E. PICKETT



ALBERT S. JOHNSTON



JAMES E. B. STUART

CONFEDERATE GENERALS

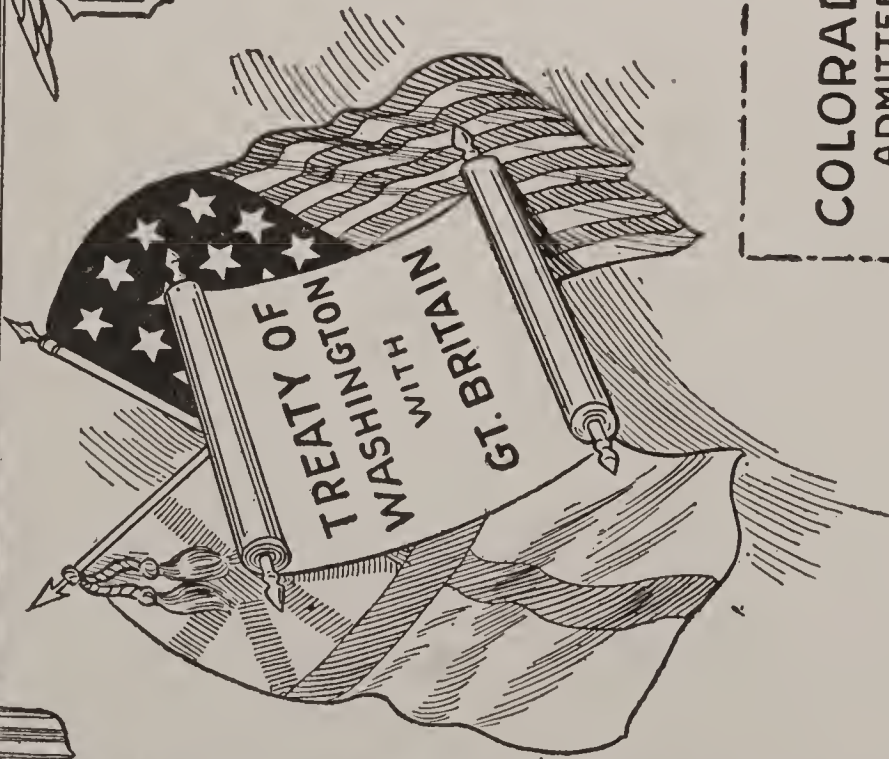
- b. The Fugitive Slave Laws of 1793 and 1850, providing for the return of fugitive slaves to their masters.
- c. The increasing size of rice and sugar plantations, the cultivation of which was made possible by the use of slave labor.
- d. The feature of the Missouri Compromise of 1820 recognizing slavery as lawful south of $36^{\circ} 30'$.
- e. The admission of Texas as a slave state in 1845.
- f. The clause in the Kansas-Nebraska Bill of Stephen A. Douglas which made slavery legal in Kansas if favored by a majority of the new settlers (1854).
- g. The Dred Scott decision of the United States Supreme Court in 1857, to the effect that an owner could take his slaves into any part of the United States and hold them.
- h. The speeches of Stephen A. Douglas in his famous debates with Abraham Lincoln, 1858.
- i. The evident popularity of the institution in the South shown by the growth in the number of slaves from 300,000 in 1776 to nearly 4,000,000 when President Lincoln issued the Emancipation Proclamation.
5. Abolition Society formed in Pennsylvania, Benjamin Franklin, president, in 1775.
6. Virginia takes steps to stop the slave trade, 1778.
7. Pennsylvania provides for freeing its slaves and to prevent the growth of the slave trade, 1780.
8. Rhode Island and Connecticut provide for gradual emancipation in 1784.
9. New York and New Jersey take similar steps in 1789.
10. These acts were connected with the sentiment that led Congress to prohibit slavery and the slave trade in the Northwest Territory, 1787 (Ordinance of 1787-89). (See also enlistment of slaves in the Continental Army.)
11. In the adoption of the United States Constitution, 1787, Congress is permitted to prohibit migration and importation after 1808.
12. England attempts both to restrict and to put an end to the slave trade, 1806.
13. Fear of insurrection from having too many slaves exerts its influence. (See New York Slave Plot, Nat Turner [Va.] insurrection, etc.)
14. Congress, March 7, 1807, passes an act forbidding the slave trade.
15. Agitation against slavery and the slave trade assumes various forms until it was put an end to by the Civil War.

III. EFFORTS TO RESTRICT THE SLAVE TRADE.

1. Massachusetts in "Body of Liberties," 1641, restricts slavery to war captives or willing slaves.
2. Rhode Island, 1652, restricts slavery to ten years.
(Neither of these acts was strictly enforced.)
3. German Quakers in Pennsylvania oppose slavery, 1688.
4. First Continental Congress (1774) prohibits the importation of slaves. (Purpose—to damage English trade.)
- a. The Missouri Compromise of 1820.
- b. Petitions to Congress, beginning 1830.
- c. Speeches in Congress.
- d. The Wilmot Proviso, 1846.
- e. The Compromise of 1850.
- f. Civil War in Kansas, 1854.
- g. Lectures and speeches by Wendell Phillips, William Lloyd Garrison, and others.
- h. Poems and books by John G. Whittier, James Russell Lowell, Mrs. H. B. Stowe, etc.

ULYSSES S. GRANT

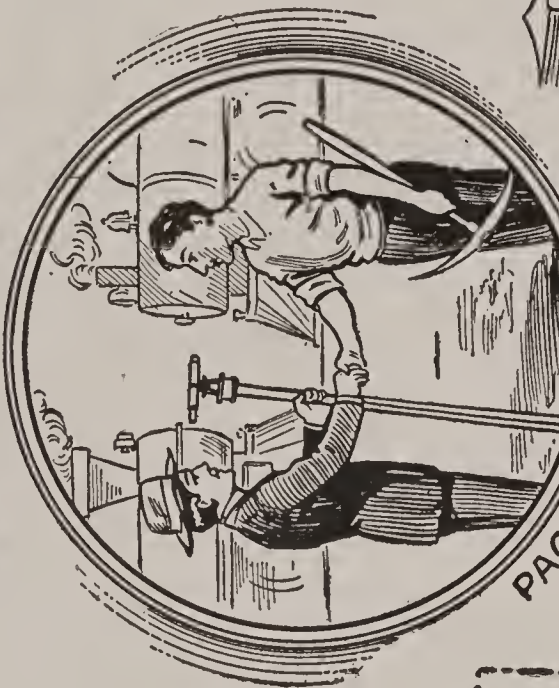
1869 ~ 1877



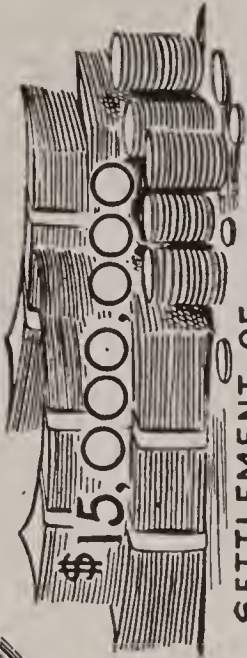
CENTENNIAL AT
PHILADELPHIA



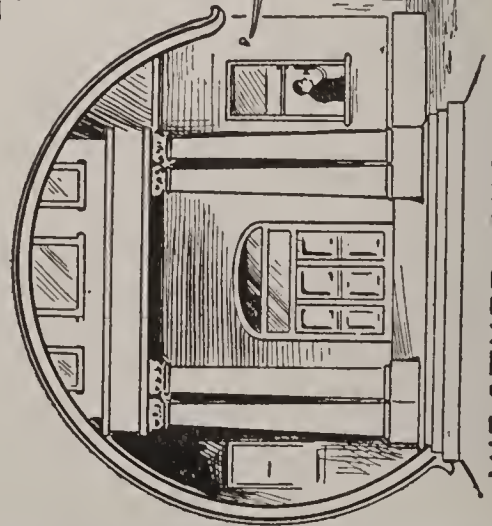
PACIFIC R.R. COMPLETED



COLORADO
ADMITTED
1876



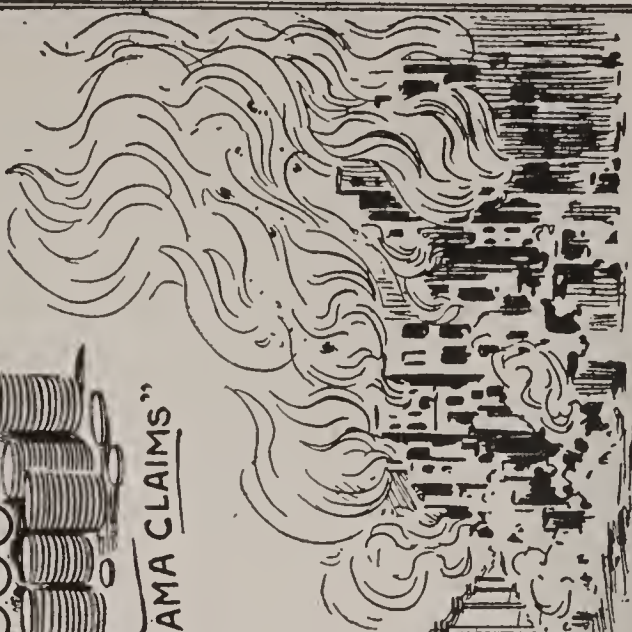
\$15,000,000
SETTLEMENT OF
"ALABAMA CLAIMS"



WEATHER BUREAU



INVENTION OF THE TELEPHONE



CHICAGO FIRE

- i. Contributions to papers and editorials in papers favoring the abolition of the entire institution of slavery (*Liberator*, *Observer*, etc.).
 - j. Societies to promote agitation against slavery and to aid fugitive slaves. ("Underground Railway.")
 - k. The formation of the Republican party.
 - 1. Raids by John Brown, etc.
- IV. ACTS ABOLISHING THE INSTITUTION OF SLAVERY.
- 1. Connecticut and Delaware prohibit slavery, 1770-76.
 - 2. Constitution adopted by Vermont in 1777 forbids slavery.
 - 3. Constitution adopted by Massachusetts, 1780, forbids slavery.
 - 4. Pennsylvania in 1780 passes an act setting all slaves free at 28 years of age.
 - 5. The Ordinance of 1787 (reënacted by Congress in 1789) forbids slavery in the Northwest Territory.
 - 6. The Missouri Compromise abolished slavery in the territory north of 36° 30' (except Missouri).
 - 7. The Compromise of 1850 abolished slavery in California and the slave trade in the District of Columbia.
 - 8. Slavery is abolished in Kansas by a majority vote of the new settlers in 1854.
 - 9. Slavery abolished in the states in rebellion by the Emancipation Proclamation of President Abraham Lincoln, Jan. 1, 1863.
 - 10. Slavery in any state or territory forbidden by Amendment XIII to the United States Constitution, adopted Dec. 18, 1865.

FINANCIAL HISTORY

The financial history of the United States is not complicated nor difficult to understand. This is due to the fact that the government has been and is an honest government. It has had no other intention than to meet its obligations squarely. There have been differences of opinion as to the best methods of raising revenue; a difference of views as to the amount of protection needed by our home industries; a difference of judgment as to the best way to promote the country's financial welfare—and occasionally political advantage has been considered in devising ways and means—but always and by all parties there has been manifested an honest intent to meet every obligation when it became due. This has led to trust at home and to confidence abroad, so that the credit of the United States is good and its bonds are in demand.

The financial development of the country may be divided into the period before the adoption of the Constitution, the period from 1787 to 1816, from 1816 to the Civil War, and from the Civil War to the present time.

I. THE COLONIAL PERIOD.

- 1. The Continental Congress began on June 22, 1775, to issue Continental paper money.
- 2. This money gradually depreciated in value because there was no stable government back of it and the people lacked confidence in its redemption.
- 3. In May, 1781, Robert Morris, of Pennsylvania, submitted a plan for the National Bank of North America, capital \$400,000; par value of stock, \$400 per share.
- 4. After long discussion the Bank was incorporated in December, 1781, and exists today as the National Bank of North America.
- 5. Local banks, in various colonies, without regulation or supervision, did a local business.
- 6. Bank of Massachusetts chartered by that colony in 1784.

7. Bank of New York starts without charter in 1784, but is chartered in 1791. These were all banks of issue and deposit.

II. FIRST PERIOD UNDER THE CONSTITUTION.

1. First Bank of the United States established on Feb. 8, 1791. Features: Capitalization \$10,000,000; par value of shares, \$400; period, 20 years; bills or notes were payable in coin and were legal tender for debts due the United States.
2. No other bank could be legally established by the United States until 1811, at which time renewal of this bank's charter was lost by the tie vote of Vice-President Clinton.
3. First law to regulate banks passed in 1805. Banks liable for their notes but not for their deposits. Nearly 200 banks failed during this period.

III. PERIOD FROM 1812 TO CIVIL WAR.

1. First Tariff Act passed by Congress on July 4, 1789. Over forty since. (See description of Tariff Legislation.)
2. This and nine additional tariff laws passed by Congress, including the Tariff of 1812, had produced insufficient revenue to meet the obligations of the government and the expenses of the "Second War of Independence."
3. Agitation, begun in 1814, led to the establishment of the second Bank of the United States in April, 1816. Features: Capital, \$35,000,000; par value of shares, \$100; United States to take \$7,000,000 of the stock; charter to run 20 years.
4. The Safety Fund System started in New York in 1829.
5. A bitter political contest resulted in the refusal to recharter the second Bank of the United States by President Jackson in 1836. It also resulted in the establishing of the State Bank System through the influence of Presidents Jackson and Van Buren.
6. The Suffolk Bank System of redemption and collection established by the New England banks.
7. An independent Treasury System Act passed in 1840, but repealed by the Whigs in 1841.
8. Over 1400 Banks of Issue and Deposit chartered by the several states up to the period of the Civil War.

IV. SINCE THE CIVIL WAR.

1. Government driven by enormous expenses of the Civil War to devise some plan for turning its bonds into ready cash.
2. National Banking System, devised in 1863 under an officer known as the Comptroller of the Currency.
3. These banks required to deposit \$100 in government bonds for each \$90 in currency issued by the United States for their use.
4. The money thus issued is good for any debt except duties on imports, interest on the public debt, and redemption of national currency.
5. By an act passed on March 3, 1865, Congress forced the circulating notes of state banks out of existence by taxing them 10 per cent per annum.
6. Temporary loan certificates were authorized in 1867, 1868, etc., the tariff failing to produce the revenue needed.
7. The financial panic of 1873 proved quite disastrous and led to acts by Congress to remove certain restrictions on National Banks, to resume specie payments, to control the coinage of silver, etc.
8. State banks, trust companies, and private banks are in operation under special charters of general laws.

9. The Sherman Silver Purchase Act of 1890, a compromise to prevent a free coinage law; the repeal of the silver purchase clause of that Act in 1893; the campaigns of 1896 and 1900, definitely establishing the gold standard; a financial panic in 1907 led to the passage by Congress of the Emergency-Currency Law in May, 1908.

REFORM OF THE MONETARY SYSTEM

The modern bank is a development of slow growth at first, but it is now rapidly becoming a great factor in the industrial welfare of the country. The thought of our wisest financiers is now being given to a plan to make it a sound and safe institution.

In a message to Congress on Dec. 21st, 1911, President Taft dealt with the finances of the United States and recommended:

1. That a Central Bank be not established as it would be "opposed to the wise and undisputed policy of maintaining unchanged the main features of our banking system."

2. Instead, he recommended a National Reserve Association under certain safeguards and with efficient supervision and control.

3. Owing to the imperfections of the banking and currency systems of the United States, he recommended also a monetary reform free from political bias and with the view of preventing "the consolidation of the money or banking power of the nation."

The National Monetary Commission, appointed under an act approved May 30, 1908, made its report to Congress on Monday, Jan. 8, 1912, after having studied the financial systems of all the leading countries of the world for the purpose of determining what changes in the financial or monetary system of the United States are desirable. The report, in brief, proposed the creation of a National Reserve Association, a coöperative union of all the banks in the United States.

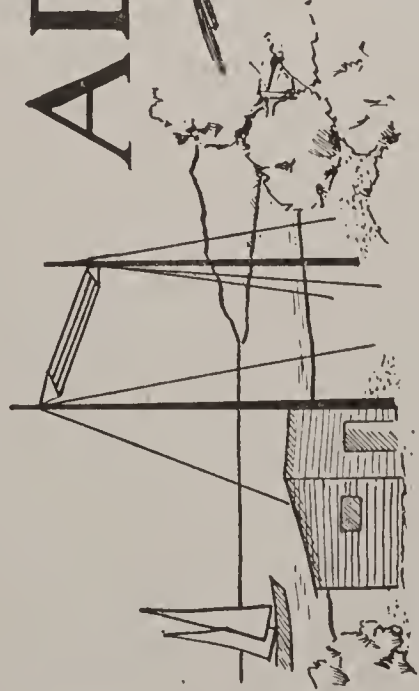
THE FEDERAL RESERVE ACT

This banking and currency act was passed at the second session of the Sixty-third Congress and approved by the President December 23, 1913. A brief synopsis of its provisions follows.

The Secretary of the Treasury, the Comptroller of the Currency and the Secretary of Agriculture acting as an organization committee shall designate not less than eight nor more than twelve cities as centers of federal reserve banks for their respective districts. Each national bank is required and all other eligible banks and trust companies are permitted to become stock holders of the federal reserve bank in its district by subscribing for stock equal to six per cent of its own capital stock and surplus. Each federal reserve bank shall require a subscribed capital of not less than four million dollars. Each federal reserve bank shall be under the supervision and control of a Board of Directors chosen by the stockholding banks. After a six per cent dividend is paid on the capital stock from the net earnings of the bank one half of the balance shall be paid into a surplus fund not to exceed forty per cent of the paid in capital, the balance going to the United States as a franchise tax. The capital, surplus and income are exempt from taxation.

The general governing body shall consist of a Federal Reserve Board including the Secretary of the Treasury and the Comptroller of the Currency and five members appointed by the President of the United States with the consent of the Senate, and whose salaries shall be twelve thousand dollars per annum. New federal reserve notes are authorized which shall be obligations of the United States and redeemable in gold. Each federal reserve bank must maintain reserves in gold or lawful money of not less than forty per cent of its reserve notes in circulation.

1901



WIRELESS TELEGRAPHY
ESTABLISHED IN AMERICA

LAW PASSED FOR IRRIGATION
OF WESTERN LANDS

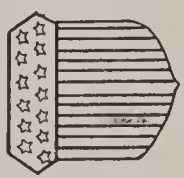
THE ELKINS' ANTI-REBATE
LAW PASSED

FINANCIAL PANIC, 1907



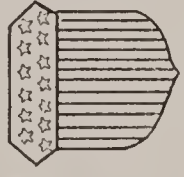
LOUISIANA PURCHASE
EXPOSITION
AT ST. LOUIS, 1904

ROOSEVELT'S ADMINISTRATION

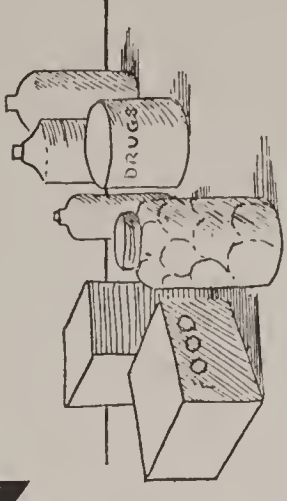


RECIPROCITY TREATY
WITH CUBA

RUSSIA - JAPAN
TREATY
AT PORTSMOUTH



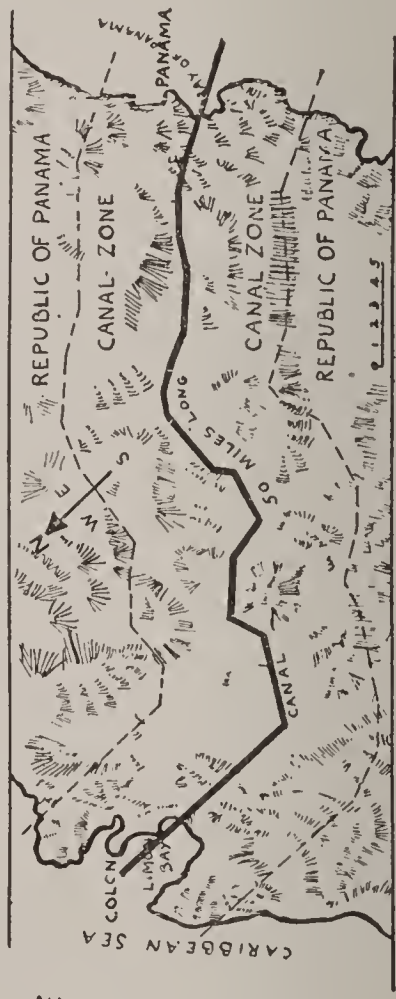
HAY - PAUNCEFOE
TREATY



PURE FOOD AND DRUGS ACT
JUNE 30, 1906

INVESTIGATION OF THE LIFE
INSURANCE SCANDALS
DEPARTMENT OF COMMERCE
AND LABOR CREATED
EX-PRESIDENT CLEVELAND'S
DEATH

PANAMA CANAL
ROUTE SELECTED AND CANAL BEGUN



GIGANTIC COAL STRIKE

These banks are bankers' banks and do not deal with individuals or corporations as such. For them they discount notes, drafts and bills of exchange, buy and sell notes, bonds and warrants of the United States or its subdivisions, establish accounts with other reserve banks, serve as a clearing-house for the member banks, and perform various other banking functions. It is expected that this new system will give flexibility to our banking and reduce to a minimum the danger of financial panics.

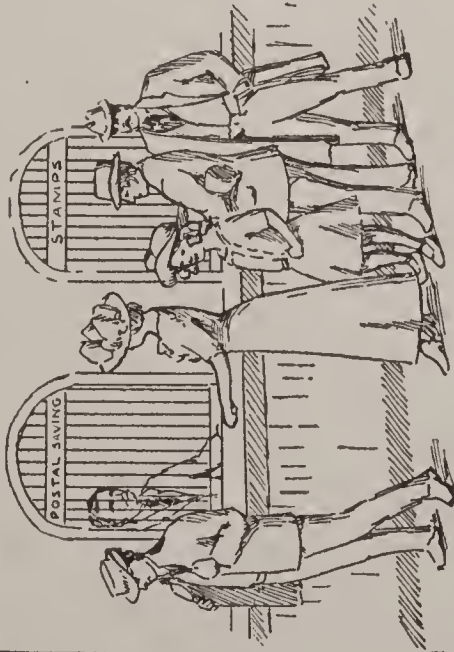
On April 2, 1914, the organization committee officially announced the twelve reserve cities designated numerically in the order named: Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco. The new banks at the places named opened for business November 16, 1914.

See MONEY; BANKS AND BANKING; CURRENCY; BUSINESS ECONOMICS.

THE TARIFF

- I. The suggestion of the Tariff policy of the United States found in the Pennsylvania Act of 1783; its origin due to the necessity for revenue facing the Congress of 1789.
- II. Tariff policy adopted on recommendation of Hamilton, 1789.
 1. Bill introduced by Madison into the Congress of 1789.
 2. Object—revenue.
 3. Incident—protection of home industries.
- III. "American System" adopted 1816.
 1. Object—protection.
 2. Incident—revenue.
- IV. "Bill of Abominations," 1828.
 1. New England's change of policy; Webster's support of protection.
 2. Duties on wool, iron, steel, flax, etc., enormously increased.
- V. Tariff Act of 1832.
 1. Protective system not materially changed.
 2. Duties on unprotected articles reduced or abolished.
- VI. Opposition of South Carolina.
 1. Nullification of Ordinance, 1832.
 2. Jackson's proclamation.
 3. "Force Bill."
- VII. Clay's Compromise Tariff Bill of 1833.
 1. Duties to be gradually reduced till 1842.
 2. Twenty per cent thereafter.
- VIII. Whig Act of 1842.
 1. Causes:
 - a. Lack of revenue, and financial panic.
 - b. Decrease of manufactures.
 2. Duties increased.
- IX. "Walker Tariff" of 1846.
 1. Reduction of duties planned.
 2. Discriminated between goods that could be produced at home and those that could not.
- X. Canadian Reciprocity Treaty, 1854.
 1. Negotiated with Great Britain.
 2. Free list included grain, flour, breadstuffs, animals, meats, fruits, fish, hides, roes, etc.
 3. Abrogated by United States in 1866.
- XI. Democratic Tariff of 1857.
 1. Cause, increase of surplus in treasury.
 2. Provisions:
 - a. Lowering of rates.
 - b. Increase of free list.

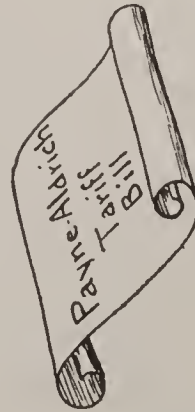
TAFT'S ADMINISTRATION



Postal Savings Banks Created



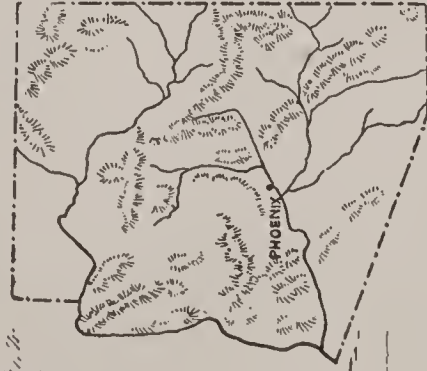
Attempted Reciprocity with Canada



Appointment of Monetary Commission

Parcels Post

On January 1st 1913 a parcels post system went into effect. The weight limit is eleven pounds. Rates vary with distance from five cents for the first pound local rate to twelve cents per pound flat for greatest distances



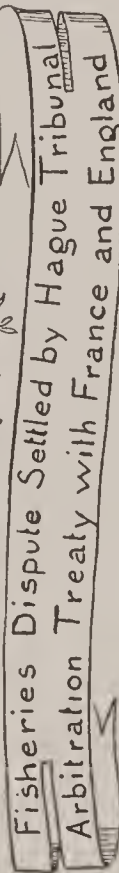
Admission of Arizona



Peary Discovered North Pole April 6th 1909



Admission of New Mexico



Events

Enforcement of Sherman Act - Dissolution of Trusts in Republican Party
American Sugar Refining Co. Election 1910-Democratic Victories
Frauds U.S. House of Representatives Dem
Alaska-Yukon Exposition Champ Clark, Speaker
Panama Canal Exposition Progress in Aviation
located at San Francisco President vetoes Wool Schedule, Farmer's List
Pure Food Agitation
Pinchot-Ballinger Controversy Lorimer Matter
Associate Justice Edw. D. White made Chief Justice

Appointment of Tariff Commission



Mexican Revolution



Thirteenth Census



President's Salary Increased

Deaths

Mark Twain Melville W Fuller
Mary Baker Eddy John M Harlan
Julia Ward Howe David J Brewer
Edward Everett Hale Thos. W. Higginson
William T. Harris Winfield S. Schley

- XII. Morrill Tariff, 1861.
1. Protection emphasized.
 2. Duties materially increased.
 3. Various changes from specific to ad valorem duties.
 4. Iron and wool manufactures greatly benefited.
- XIII. War Tariffs, 1861-64.
1. Purpose, revenue.
 2. Duties imposed indiscriminately, the protection idea prevailing.
 3. Average rate of duty 47.06 per cent.
- XIV. Tariff Revision, 1883.
1. Appointment of Tariff Commission to investigate conditions.
 2. Conflicting interests.
 3. Increase of free list.
 4. Slight reduction on some raw materials.
- XV. Democratic attempts at tariff reform, 1884-88.
1. Morrison bill defeated.
 2. Mills Bill defeated by the United States Senate.
- XVI. McKinley Act of 1890.
1. Increased duties on wool and woolen goods.
 2. Some additions to free list.
 3. Reduced duties on sugar.
- XVII. Wilson Act, 1894.
1. Substitution of ad valorem for specific duties on some articles.
2. Wool, lumber, and salt put on free list (a radical change) ; iron and steel duties reduced.
 3. Income tax a feature, but declared unconstitutional by Supreme Court.
- XVIII. Dingley Act, 1897.
1. Restoration of specific for ad valorem duties.
 2. Increased rate on woolen, silks, and other fabrics; duty on hides reimposed.
 3. Protection of certain interests by restoring duty on raw materials.
- XIX. Payne-Aldrich Law, 1909.
1. Attempt toward revision downward, with questionable success. Schedule K (woolens) "indefensible."
 2. Provided for appointment of Tariff Commission.
- XX. Attempted Reduction, 1911, by Democratic and "Progressive" Republican coalition.
1. Bill reducing woolen rate vetoed by the President.
 2. "Farmers' Free List" vetoed by the President.
 3. Tariff Commission to report result of its labors and investigations as a basis for the President's recommendations to Congress.

THE UNITED STATES AS THE WORLD'S PEACEMAKER

RELIGIOUS PEACE—CIVIL PEACE—INTERNATIONAL ARBITRATION

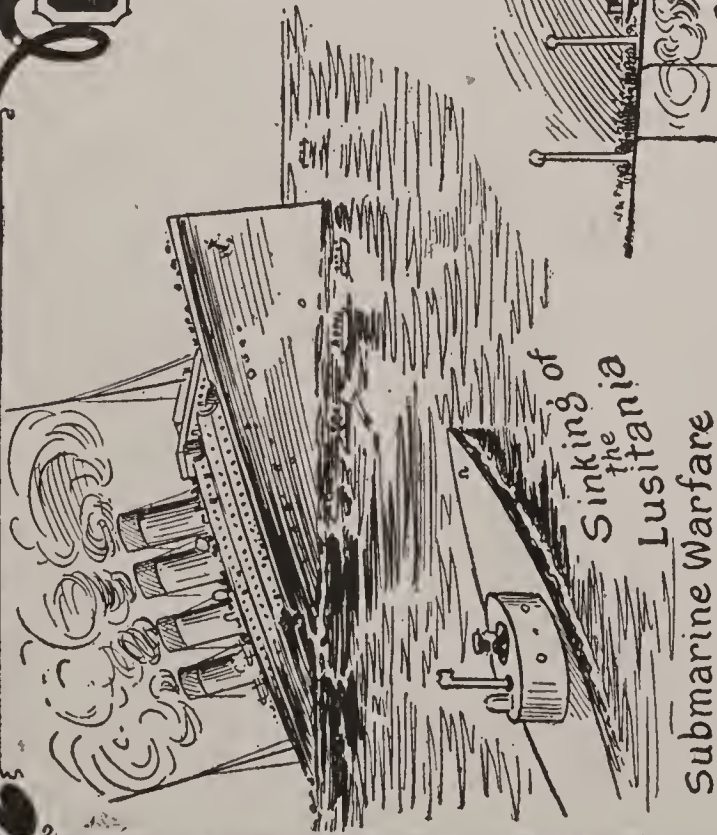
The march of civilization requires movement. A nation cannot stand still. If progressing, it comes into contact with some other people in motion. This produces friction and friction may lead to war. If not progressive, a nation gets in the way; and this causes antagonism or entangling relations. This is another source of war. Other causes are ambition, commerce, religion, desire for revenge, etc. In a few cases belligerency is due to policy; hence, arbitration is urged as a part of international law. Law is the only absolute and final means for the settlement of war—either civil or international.

The United States has a unique record in the matter of promoting permanent peace, and one in which it may take a pardonable pride. In the first place, those who gave the nation birth by the formation of the Constitution in 1787, guarded carefully the rights of every citizen anywhere within the nation's bounds by this provision: "Art. IV, Sec. 2. The citizens of each state shall be entitled to all the privileges and immunities of citizens in the several states."

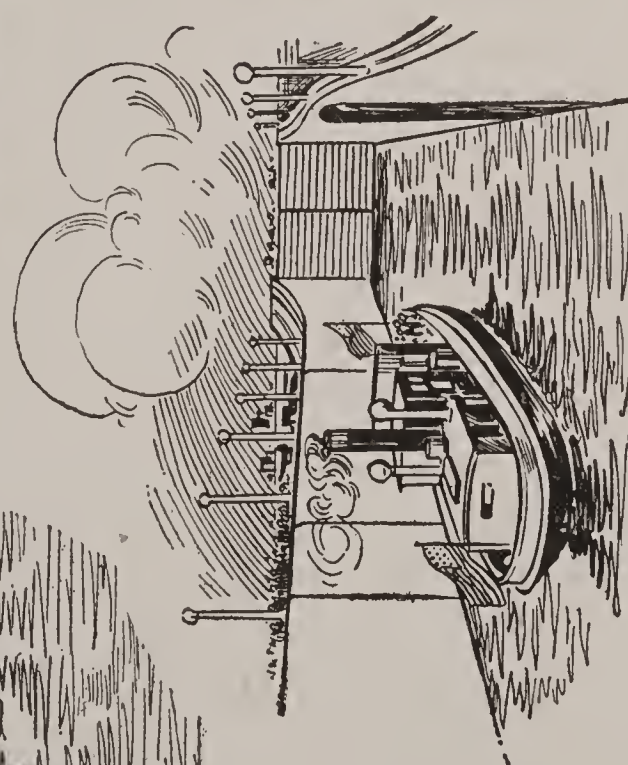
WOODROW WILSON

1913

19—



Sinking of the Lusitania
Submarine Warfare



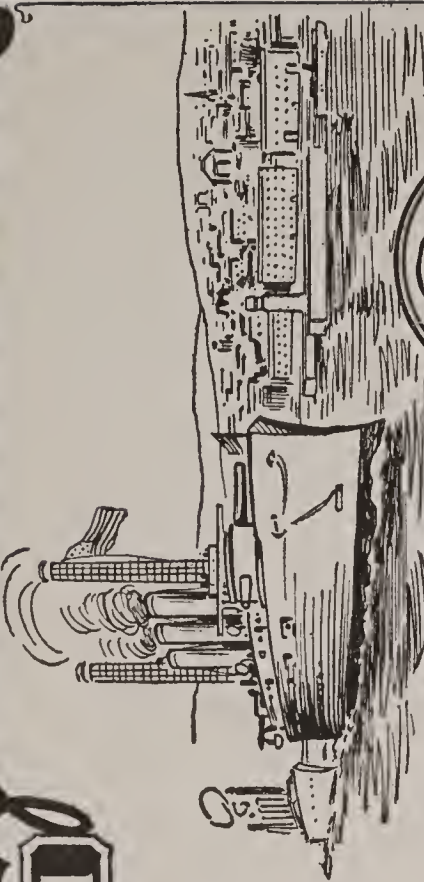
PANAMA CANAL OPENED
FIRST BOAT THROUGH.



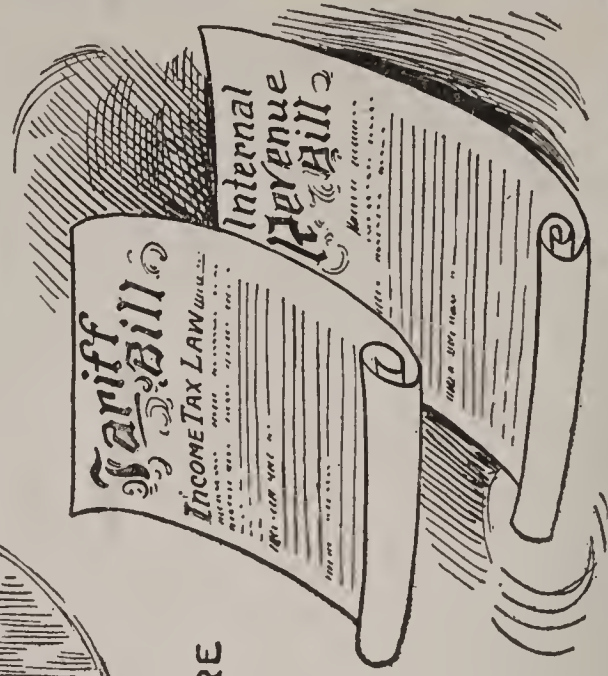
FEDERAL RESERVE
BANKING MEASURE



VERA CRUZ TAKEN
CARRANZA RECOGNIZED
VILLA PUNITIVE EXPEDITION



ALASKAN RAILROAD
AUTHORIZED



Tariff Bill

Income Tax Law

Internal Revenue Bill

Panama Expositions { San Francisco
San Diego
Army & Navy Increase Authorized

THE GREAT WORLD WAR
Protests to Belligerents Against
Infringements of the Freedom of the Seas

Netchum

I. RELIGIOUS PEACE.

The first amendment to the constitution, adopted by the first Congress that met with this instrument as the supreme law of the land, makes this unequivocal provision for religious peace by the separation of church and state and by guaranteeing freedom in religious belief:

1. "Congress shall make no law respecting an establishment of religion."
2. "Congress shall make no law prohibiting the free exercise of religion."

This amendment clearly shows that the founders of our government designed to secure religious peace, and to go as far as law could go to obtain that end by establishing toleration in religious belief.

II. CIVIL PEACE.

Some steps taken by the people of the United States in promoting peace between their own citizens and among the nations of the world are:

1. Formation of the first Peace Society in history in New York in 1815.
2. Formation of the American Peace Society in 1828.
3. Arguments and pamphlets giving plans for universal peace.
4. Helping in the formation of the Hague Tribunal.
5. A gift from Andrew Carnegie of \$1,500,000 to erect a Temple of Peace at The Hague.
6. The action of Secretary of State, John Hay, in securing "the open door" in China.
7. The action of President Roosevelt in bringing about peace between Russia and Japan.
8. The building of the Panama Canal on the idea of promoting the world's commerce and helping to industrial peace among nations.
9. Showing a spirit of friendliness toward weaker countries on this side of the ocean by protecting them while developing, by the maintenance of the Monroe Doctrine.
10. The meeting of the National Arbitration and Peace Congress in New York City in 1907. (The discussions were participated in by illustrious men from all parts of the world.)
11. The action of President Taft in uniting with England to try to secure a basis for international peace.

III. INTERNATIONAL ARBITRATION.

1. In the establishment of the "Permanent Court of Arbitration" for the settlement of international disputes the United States not only joined with twenty-three other powers in providing for the sittings of the Court and in ratifying its decisions, but it was active in promoting the success of the International Peace Conference which resulted in The Hague Tribunal.
2. As one of the signatory powers, it has appointed four men "famed for their competency in international law" as members of the permanent court.
3. It has taken this position (and shown its sincerity by the acceptance of certain decisions of the Tribunal in some of its own differences with other nations) on the grounds of universal peace and the promotion of the principles of true civilization. (San Juan boundary dispute arbitrated by the Emperor of Germany; Alabama claims settled by the Geneva Arbitration Commission; "Pious Fund" dispute with Mexico, and dispute with Venezuela as to claims of blockading powers—both settled by the Hague Tribunal Board.)

QUESTIONS ON UNITED STATES HISTORY

I. STEPS TO LIBERTY.

1. Is liberty dear to you? Why?
2. What is the difference between liberty and license?
3. Are you under obligation to protect the liberties of others? Explain.
4. What was the "Charter of Liberties"?
5. Why did the English people force King John to grant the Great Charter?
6. What were its provisions?
7. How does it concern you?
8. Did Simon de Montfort originate the idea of the two Houses of the English Parliament or did he simply bring the matter to a head?
9. What sort of a man was De Montfort—one filled with high ideals, or one filled with personal ambition only?
10. How was he regarded by the people?
11. What were the features of the 39th Article of Magna Charta that were reaffirmed in the Habeas Corpus Act of 1679?
12. Is *habeas corpus* in the laws of the United States? Of what value to you?
13. Did the American colonists rely upon anything in the "Petition of Rights" or the "Bill of Rights" in resisting the "Stamp Act" and "Declaratory Act"?
14. What justification had they for appealing to the principle of these bills and charters?
15. Have you read the Declaration of Independence? By whom was it made? To whom was it addressed?
16. What did the signers say they were about to do? Was it a matter of great importance? How do you know?
17. What did the signers assert to be fundamental truths?
18. What right did they claim?
19. Upon what ground can a people claim the right to destroy or change their government? Does this apply also to their control over public utilities—such as railroads, telegraphs, telephones, boats, gas companies, etc., and also to the regulation of corporations?
20. What is a constitution?
21. What is a preamble to a constitution?
22. What does the preamble to the constitution of the United States say are the purposes of the constitution?
23. When was the United States Constitution adopted? Why? How?
24. How can it be amended?
25. What was the effect of the Emancipation Proclamation?
26. What was the effect of the Thirteenth Amendment?

II. TARIFF.

1. What is a Tariff?
2. What is the distinction between a "tariff for protection" and a "tariff for revenue only"?
3. What suggested the tariff to the United States?
4. What first led Congress to pass a tariff law?
5. When was that law passed and what were its provisions?
6. Who recommended the first United States tariff? What position did he hold?
7. Who framed the Congressional bill? What were its features?
8. Why was the tariff law of 1816 called "the American System"?
9. In what way does a tariff protect manufacturers? Is it an equal protection to laborers?

10. How many articles listed in the tariff bill of 1789? How many in the Dingley Act of 1897?
11. Why was the tariff law of 1828 called a "Tariff of Abominations"? What position was taken by Daniel Webster? By Henry Clay?
12. What was the cause of the antagonism of Clay and Calhoun in 1832? Who was then president? What did South Carolina attempt at that time? Why?
13. What causes led to the tariff acts of 1842 and 1846? How far were they similar?
14. What was the object of the Canadian Reciprocity Treaty of 1854? Of Canadian Reciprocity in 1911?
15. Has reciprocity with other peoples been in effect? Has it worked good or harm to the United States?
16. Compare the two tariff acts of 1857 and 1861 and their effects on manufacturing in the United States.
17. What was the chief purpose of the war tariffs? What was an incidental purpose?
18. How was the Tariff Commission of 1883 appointed? The Commission of September, 1909? What were the powers and duties of each?
19. What are the essential points of difference between the Wilson Bill and the Dingley Bill?
20. What was "Schedule K" of the Payne-Aldrich bill? Why has it caused so much discussion?
21. What were the features of the "Tariff Bill of 1911" which President Taft objected to?

III. SLAVERY.

1. How did general slavery originate? What nations practiced it? How did they treat their slaves?
2. What caused negro slavery? Where were American negro slaves mostly obtained?
3. What can you tell about Sir John Hawkins?
4. What peoples were most active in buying and selling negro slaves? Why?
5. What were the principal occupations of slaves in the Northern Colonies of the new world? In the Southern Colonies?
6. What made slaves specially valuable in the Southern States?
7. Were slaves recognized as property in both sections of the country?
8. Name some laws bearing upon the question of slavery since the United States became a nation.
9. What measures led to bitter contests on this subject among the people?
10. What was the Massachusetts "Body of Liberties"? Was it aimed particularly at slavery?
11. Why were the Massachusetts and Rhode Island measures in the middle of the 17th century practically "dead letter laws"?
12. What motives actuated the first efforts to restrict the slave trade?
13. What were these steps?
14. What was the "Ordinance of 1787"? To what section of the country did it apply?
15. Why was the Ordinance of 1787 passed? Why was it reenacted in 1789?
16. What was the provision in the United States Constitution about the slave trade in 1808?
17. What was the Missouri Compromise?
18. Who was Wilmot? What did his "Proviso" contain? Did it ever become a law?
19. What was the Compromise of 1850? Who was its author?
20. What was the Kansas-Nebraska Bill?

IV. MISCELLANEOUS.

1. What were some of the most important compromises of the constitution? What was the chief point at issue between the large and the small states?
2. What were the "Alien and Sedition Acts"? What action was taken in regard to them by Virginia and Kentucky?
3. Why did Napoleon wish to sell Louisiana? Was there any objection to its purchase on the part of the people of the United States?
4. What was meant by the "Right of Search"?
5. What was the effect of the Embargo Act prior to the War of 1812?
6. Could the War of 1812 have been honorably averted? Why was it delayed as long as it was?
7. What was the effect of the War of 1812 on the industries of the United States? Why was this war called the "Second War for Independence"?
8. What was the effect upon manufacturing and commercial interests of the invention of the steamboat?
9. What was the effect upon slavery of the invention of the cotton gin? How did the purchase of Louisiana affect the slavery question?
10. What was the "Monroe Doctrine" and how is it applied today?
11. What is meant by "Civil Service" and the "Spoils System"? To what extent was Jackson responsible for the "Spoils System"?
12. To what extent have compromises entered into the legislation of the United States?
13. What do we mean by "pet banks" and "wild-cat banks" as referred to in Jackson's administration?
14. What are the principal causes of the financial panic of 1837? Was President Van Buren responsible for this panic?
15. Why was the South disappointed by Texas refusing to divide her territory into a number of states?
16. Was the Mexican War justifiable and which section of the country favored it more strongly?
17. What were the results of the publication of "Uncle Tom's Cabin"? What is meant by the "Underground Railway"?
18. What was the immediate effect on the country of the election of Abraham Lincoln? Was Lincoln more concerned about abolishing slavery or preserving the Union?
19. Was it justifiable for England to recognize the belligerency of the Southern Confederacy? What was the effect of this recognition on the North and the South?
20. When was the Emancipation Proclamation issued?
21. Why was President Johnson impeached?
22. What is meant by "Ku-Klux-Klan," "Carpet-baggers" and "Scalawags"?
23. What were the conditions in the South during the period of reconstruction?
24. What were the "Alabama Claims" and how were they settled?
25. What is meant by the terms "Demonetization of Silver" and "Resumption of Specie Payment"?
26. When was the Red Cross Society organized? Who was the person most responsible for its organization?
27. What is meant by a "Pool," a "Trust," a "Labor Union," a "Blacklist," a "Strike" and a "Boycott"?
28. What is meant by the term "Civil Service Reform" and what progress has been made in this connection since the days of Jackson?
29. What is meant by the terms "Free Trade," "Protective Tariff," "Reciprocity" and "Tariff for Revenue Only"?

CIVICS

Owing to man's association with his fellows he must surrender, for the general good, some of those rights that he would possess if alone. This restricted liberty is usually termed *civil liberty* and may be considered from two points of view: the principles or motives which should govern a citizen; and how and to what extent rules or laws should restrain and guide the citizen in the discharge of his duties. In a broad sense, *Civics* covers both of these. The latter, however, is frequently termed *Civil Government*. It may readily be seen that a citizen may know all about the forms and administration of government, but if he is not guided by the right motives he may become a dangerous or injurious part of civil society.

Government is therefore instituted for the protection of society against those members who are disposed to impose upon or to take advantage of the weak, the timid, or the uninformed. Guided by *international law*, nations even are restricted by other nations in the exercise of their powers or in their desire for conquest or possession. Such action sometimes leads to a war between nations, but modern civilization (influenced by civics in its best sense) is endeavoring to substitute arbitration for war in such cases. (See HAGUE TRIBUNAL.)

RIGHTS OF CITIZENS. Government is instituted for the good of the governed. It is proper that certain rights, usually termed *natural rights*, should not be taken away from the individual. Otherwise his freedom will be improperly restrained and his happiness and ability to acquire property interfered with. It is often difficult to distinguish, however, between *natural rights* and *legal rights*. The circumstances must sometimes settle the question. The Declaration of Independence defines natural rights, in a general sense, as "life, liberty, and the pursuit of happiness." *Laws* are the restrictions of these natural rights by some competent authority, or government, recognized by the individual as having the power to enact and to enforce rules of conduct controlling his political and social life.

GOOD CITIZENS. So general is the feeling that good citizenship is necessary to good government that public-spirited men and women are freely contributing both their money and their time to organized efforts for the promotion or teaching of civics (such as the American League for Civic Improvement). Some newspapers and societies hold meetings where discussions or addresses enable the people to become better informed. There are also movements on foot, such as "Children of the Republic," to teach children self-restraint, love of country, and obligation to the community as a whole. In this way there is impressed upon the mind of both old and young the necessity for law or control and the duty of every citizen to help make his government perfect and to give support to the officers of that government. Thus is taught the ethics of civics.

KINDS OF GOVERNMENT. It is usual to classify governments, according to the way in which the supreme power is exercised, into *Monarchies* (absolute or limited), *Aristocracies*, and *Democracies* (pure or representative).

In a Monarchy the supreme power is vested in a sovereign termed the monarch. If the three functions of government—legislative, executive, and judicial—are vested in one person, it is termed an *absolute monarchy*. If the acts of the ruler,

however, are limited by a constitution, the government is termed a *limited monarchy*. Russia until recently was an absolute monarchy; England is a limited monarchy. Monarchies may be further distinguished as hereditary (in which the sovereign inherits his power), or elective (in which the ruler is chosen by the people).

In an Aristocracy, family, wealth, or power usually determines who shall exercise the functions of ruler. There are few pure aristocracies. Government by such a privileged class is now uncommon, but its tendency is seen to a greater or less extent in all forms of government.

In a Democracy all citizens are supposed to possess an equal share in the sovereignty. In a *pure democracy* this power is exercised directly by the people, usually through a public assembly. Since such meetings have been found impracticable in any other than a very small state, there has arisen the *representative democracy*, or *republic*. In this form of government the supreme power is vested in delegates selected by the citizens. At this time pure democracy exists only among certain savage tribes. The United States is regarded as the best type of representative democracy, since here all the people are presumed to have an equal voice in the selection of representatives.

ORIGIN OF THE REPUBLIC OF THE UNITED STATES. The principle of civil liberty seems to have been deeply implanted in the Angles and Saxons at the time of their conquest of England. Becoming restless under what they regarded as the encroachments of the monarch upon their rights and privileges, they forced King John in 1215 to sign that great instrument known as Magna Charta, or the Great Charter. This document contained sixty-three provisions protecting the subject in his personal freedom and in his property. Subsequent steps taken by the people in asserting and protecting their rights were the establishment of the House of Commons, the declaration of the rights of colonists, and securing the passage of the *Habeas Corpus* Act and of the Bill of Rights. The violation of these rights in dealing with the American colonists led to the establishment of the United States government. The colonists first organized under the instrument known as "The Articles of Confederation." This was found too weak to be the basis of a stable government—especially when it was desired to form a nation out of states having greatly diverse institutions and interests. Hence arose the call for the Constitutional Convention of 1787. This body, after four months of discussion and compromise, adopted the present Constitution of the United States. Ten amendments were adopted in 1791; the eleventh in 1798; the twelfth in 1804; the thirteenth in 1865; the fourteenth in 1868, and the fifteenth and last in 1870. The national constitution with its amendments is now the supreme law of our republic.

THE NATION AND THE STATES. At the formation of the Constitution it was natural that the states should be jealous of the powers proposed to be conferred upon the new nation. That jealousy to some extent will probably always exist. Its expression is found in the doctrine of States Rights. Many think this feeling valuable to both the states and the nation. The state, like the individual, must surrender certain rights for the general good. Just how much it is proper or necessary to surrender is a question left to the people's representatives to decide. Two points are made clear in the Preamble to the Constitution: (1) That the people are always to be recognized as the source of power; (2) That it was intended to form a nation—not a mere confederacy of states. In their forms, the national and the state governments have many features in common. Each state government, however, has features peculiar to itself.

ADOPTION OF THE CONSTITUTION. The national constitution was adopted, as stated above, by a convention of delegates appointed by the states then existing, and ratified by them through conventions called by each state for the purpose. Amendments may be made as shown in the following chart:

PROPOSED BY

Congress.

When two-thirds of both houses deem it necessary;

Or by

A Convention called by Congress on application of the legislatures of two-thirds of the states.

RATIFIED BY

The Legislatures of three-fourths of the several states;

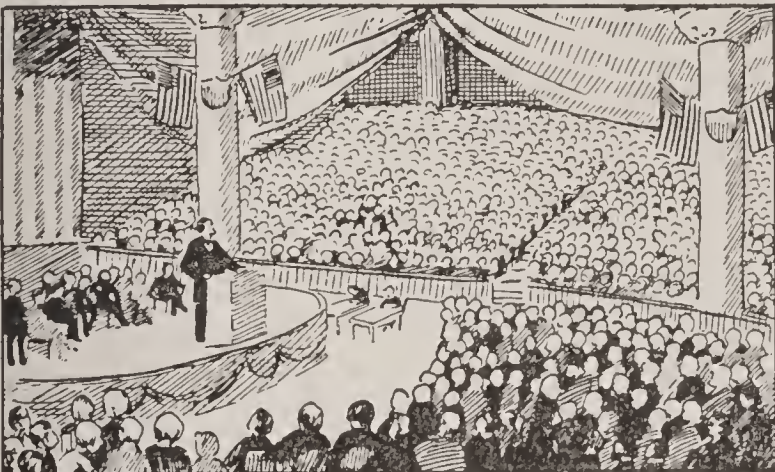
Or by

Conventions in three-fourths of the several states;—as proposed by Congress.

Illustration—The proposed amendment to the Constitution granting Congress the right to levy an Income Tax was passed by a two-thirds vote of both houses of Congress in 1909 and has now (1911) been ratified by a three-fourths vote of the legislatures of thirty-one of the thirty-five states whose approval is necessary to make it a part of the supreme law of the land.

No amendment, however, can deprive a state of equal representation in the United States senate without its consent. Each state adopts its own constitution, but it must not conflict with the constitution of the United States. Each state must have a republican form of government. Congress, having power to admit states into the union, scrutinizes proposed constitutions closely and may refuse admission if it disapproves any of their provisions. It is not deemed wise to amend a constitution except in case of absolute necessity. Changes weaken both confidence and respect for such an instrument and therefore should receive long and careful consideration.

THE ELECTION OF A PRESIDENT.



NOMINATION AT PARTY CONVENTION



VOTING BY THE AUSTRALIAN BALLOT SYSTEM

THE ELECTORAL COLLEGE

THE ELECTORS ARE CHOSEN AT THE GENERAL ELECTION. EACH STATE HAS AS MANY ELECTORS AS IT HAS MEMBERS IN BOTH HOUSES OF CONGRESS. ON THE SECOND MONDAY IN JANUARY THESE ELECTORS MEET AND CHOOSE THE PRESIDENT AND VICE-PRESIDENT. ON THE SECOND WEDNESDAY OF FEBRUARY THE ELECTORAL VOTE IS COUNTED

THE REAL ELECTION OF THE PRESIDENT



INAUGURATION, EAST WING OF CAPITOL

BRANCHES OF THE GOVERNMENT. The United States government is administered under three departments: (1) The Legislative, which makes the laws; (2) The Judicial, which determines their meaning or application; (3) The Executive, which carries the laws into effect. The first is called Congress and consists of the House and the Senate; the second is composed of The Supreme Court and subordinate

courts; the third comprises the President, his Cabinet, and such other men as he may call to his assistance. Each state has similar departments: the lawmaking body being called the Legislature, or General Assembly; the law-interpreting bodies being the Supreme Court and subordinate courts; and the law-enforcing branch being composed of the Governor and his assistants.

A COMPARISON OF THE NATIONAL AND STATE GOVERNMENTS

NATIONAL		STATE	
Source of power—National Constitution		Source of power—State Constitution	
LEGISLATIVE	DEPARTMENTS	LEGISLATIVE	
EXECUTIVE		EXECUTIVE	
JUDICIAL		JUDICIAL	

Note.—The United States is required to guarantee a republican form of government to every state, and each state must give full faith and credit to the public acts, etc., of other states.

LEGISLATIVE BRANCH

UNITED STATES	STATE
Congress:	Legislature:
Senate	Senate
House	House

The Senate is composed of two members from each state, elected for a term of six years. The House membership varies, the number and apportionment being determined after each census. The term of office in the House of Representatives is two years.

Qualifications of Congressmen

Of Senators:

1. Must be not less than 30 years old.
2. Must be citizens of the United States for nine years.
3. Must be residents of the states from which they are chosen.
4. Must be chosen by the state legislature.
5. Must not be an officer of the United States.
6. May be of any race or color.

Of Representatives:

1. Must be at least 25 years of age.
2. Must be citizens of the United States for seven years.
3. Must be resident of the state from which chosen.
4. Must not be officers of the United States.
5. May be of any race or color.
6. May be a "delegate" from a territory.

The Senate is supposed to represent the counties; the House to represent the individual citizens. This distinction is largely imaginary;—the senatorial district, for instance, may include more or less than a county. The terms of office in these bodies vary in the different states.

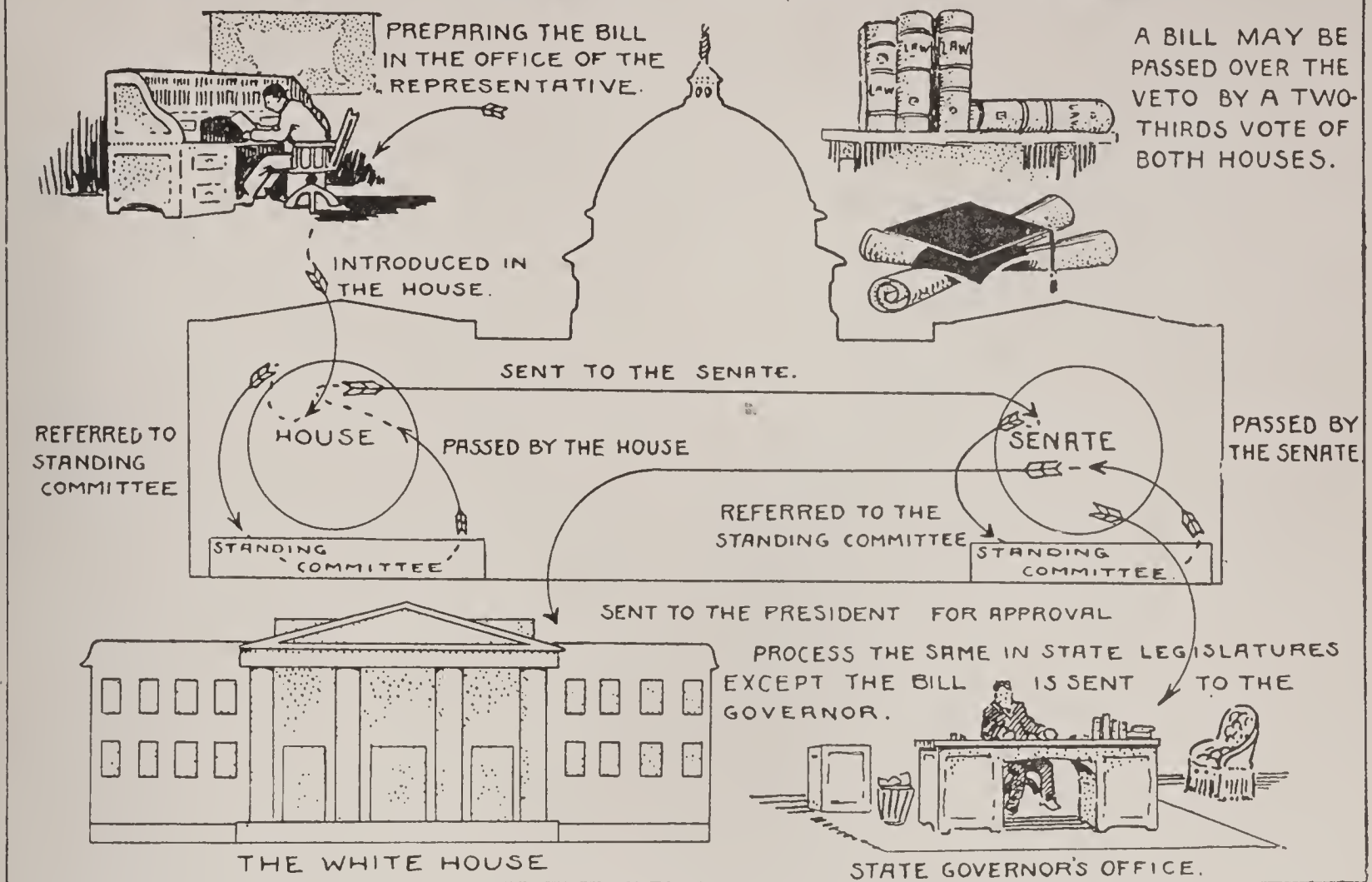
Qualifications of Legislators

Of Both Houses:

1. Must be citizens.
2. Must not be criminals or paupers.
3. Must be elected by the people of their districts.
4. In some states may be male or female.

Other qualifications vary in the different states. They are determined by the state constitution or by laws passed thereunder. In some states the qualifications for members of the upper house are higher than for the lower branch, and its members are often elected for a longer term.

HOW LAWS ARE MADE.



SPECIAL POWERS OF EACH BRANCH OF CONGRESS

The Senate:

1. May ratify or reject treaties.
2. May ratify or reject presidential appointments.
3. May sit as a Court of Impeachment.
4. Is the judge of the qualification and election of its members.
5. May enact its own rules and expel members.
6. May compel the attendance of members.
7. Must not adjourn *sine die* without the consent of the House.

Other powers and restrictions are given in Sections 8 and 9 of Article I, United States Constitution.

The House:

1. Has the sole power to prefer articles of impeachment.
2. Has the sole power to originate bills for raising revenue.

With the exception of the three powers given to the Senate alone and of the exclusive powers named above, its powers are coördinate with those of the Senate.

SPECIAL POWERS OF EACH BRANCH OF A STATE LEGISLATURE

The powers delegated to senators and representatives of the several states are largely the same and intended to secure wisdom and justice in legislation. In all the states, however, impeachment proceedings must originate in the lower house and be tried in the senate. The senate alone is given power to ratify or reject appointments made by the governor. In most states revenue bills must originate in the house of representatives. Certain prohibitions are made by the national constitution (Art I, Sec. 9) and certain restrictions are found in the constitutions of the various states. It is the specific province of state legislatures to deal with such matters as are not reserved to Congress. (The government of the territories is determined by Congress).

EXECUTIVE BRANCH

UNITED STATES

The President,

with his Cabinet, composed of:

1. The Secretary of State.
2. The Secretary of the Treasury.
3. The Secretary of War.
4. The Attorney General.
5. The Postmaster General.
6. The Secretary of the Navy.
7. The Secretary of the Interior.
8. The Secretary of Agriculture.
9. The Secretary of Commerce and Labor.

(In case of the removal, death, resignation, or disability of the President, the then existing Vice-President becomes President. Further succession is by cabinet officers in the order given above).

In addition to his official advisors, or Cabinet, the President is assisted in executing the laws by a number of "Commissions" and other minor bodies and officials. Some of these are:

The Interstate Commerce Commission.
 The Civil Service Commission.
 The Fish Commission.
 The Labor Commission.
 The Weather Bureau.
 The Librarian of Congress.
 The Government Printing Office.
 Foreign Ambassadors, Ministers and Consuls.

STATE

The Governor,

with the Administrative Officers:

1. The Secretary of State.
2. The State Treasurer.
3. The State Auditor.
4. The Attorney General.
5. The Superintendent of Public Instruction.

(In case of the removal, death, resignation, or disability of the Governor, the then existing Lieutenant-Governor becomes Governor of the state; or, where there is no Lieutenant-Governor, the President of the State Senate or the Speaker of the House).

In addition to the administrative officers named above, whose duty it is to assist the Governor in the execution of the laws, many states have also:

Railroad Commissioners.
 An Insurance Commissioner.
 A Commissioner of Lands.
 An Adjutant General.
 A State Librarian.
 A Commission (or Board) of Agriculture.

(For others, see outline below).

While these officers owe their first duty to the state, they are expected to be ever ready to assist the nation.

JUDICIAL BRANCH

UNITED STATES

Supreme Court:

(Chief justice and eight associates).

Jurisdiction,**Original:**

1. Cases involving ambassadors, consuls, etc.
2. Cases when state is a party.

Appellate:

1. Interpretations of law.
2. All cases not excepted by law.

Inferior Courts:**Court of Commerce:**

(Presiding judge and four associate judges.)

Jurisdiction,

Cases under laws regulating interstate commerce.

STATE

Supreme Court:

(Chief justice and several associates).

Jurisdiction,

1. Constitutionality of Law.
2. Appeals from lower courts.

Inferior Courts:

(Some states have a court intermediate between the Supreme Court, which it is designed to relieve, and the following).

Circuit, district, or county court:

General criminal and civil jurisdiction not covered by lower courts.

Probate Courts:

Proving wills, settling estates, etc.

UNITED STATES

Circuit Court of Appeals.

(A Supreme Justice and two circuit judges).

Jurisdiction,

Certain appellate cases fixed by law

Circuit Courts—nine.

(A supreme justice with at least two circuit judges to each).

Jurisdiction,

1. Civil cases involving more than \$2,000.

2. Cases involving patent and copy-right laws.

3. A Court of Equity.

District Courts—seventy-six:

(A district judge to each).

Jurisdiction,

1. Crimes against United States law.

2. Counterfeiting, bankruptcy, etc.

Court of Claims—one:

(A Chief Justice and four associates).

Money claims of individuals against the Government.

Court Officers:

U. S. Commissioners,

To assist circuit and district judges.

U. S. District Attorneys,

To represent U. S. in its civil and criminal cases.

U. S. Marshals,

To make arrests in violation of federal law.

Clerks,

To keep the records of the various courts.

STATE

Municipal Courts:

Especially in larger cities for cases involving violation of city ordinances.

Justice Courts:

Petty criminal cases and civil cases involving small sums, usually less than \$100.

Court Officers:

(With duties corresponding to similar U. S. officers).

Court commissioners.

State's attorneys.

State's marshals.

Clerks and reporters.

LOCAL GOVERNMENT

Many persons desire fuller information as to their forms of local government (county, township, city, etc.). Lack of knowledge of their rights and duties is often the cause of indifferent or bad citizenship. We therefore give space here to a full presentation of the essential features of each of these forms of government in the community.

THE TOWN

In New England the town is essentially the unit of local government. The township, as found in the western states, does not exist; and the county is a division mainly for judicial purposes.

OUTLINE

Size { Fixed by legislature.
May be divided.
Organization varies.

Powers { Are corporate.
Vary in different states.

Officers	{	Number varies	{	Selectmen (3 to 5), to carry on the public's business.
			Clerk, to keep the records.	
			{	Assessors, to determine valuation.
				Others as needed (collector, school committee, constables, etc).
	{	Duties—Defined by statute.		
Town Meeting	{	When held	{	Regular, fixed by law, usually annually in the spring.
			Special, as occasion arises.	
		How conducted	{	Presided over by a Moderator.
			Full and free discussion permitted.	
	{	Purposes	{	To elect officers.
To decide upon affairs of local interest.				

THE TOWNSHIP

In some western states both the town and the township form of government are in use. The township, however, is essentially the basis of operation and representation. As usually organized, the following are the features of township government:

OUTLINE

KINDS	{	Civil	{	Varies in size. For purposes of government.
		Congressional	{	Six miles square. Has subdivisions. For fixing land titles.
		District	{	Usually coincides with civil township in area. For school purposes.

OFFICERS

Trustees	{	Term, usually three years, one selected each year.
		Meetings, generally twice a year—spring and fall.
Clerk	{	Duties: fixing time of elections, equalizing taxes, improving highways, caring for public health, filling vacancies, etc.
		Term—usually two years.
Assessor	{	Duties {
		Is secretary of Board of Trustees. Has charge of elections, ballots, etc. Administers oath of office to township officers.
Constables	{	Term—usually two years.
		Duties {
Justices	{	To act as general police officers of the township. To serve papers in the justice court. To perform other duties fixed by statute.
		Term—usually two years.
Justices	{	Jurisdiction, unless restricted by statute, is co-extensive with county.
		Duties {
Justices	{	To keep a docket of official acts.
		To try {
Justices	{	Civil suits, to protect right or prevent wrong. Criminal suits, to punish offenders or hold them to higher courts.

Road Supervisors	{	Term—usually two years.
		Duties { To post taxes assessed. To look after highways and bridges, and the labor due on them. In large counties may order election of township collector.
School Directors	{	Term—three years, one third selected each year.
		Duties { To act upon claims against district. To hire or discharge teachers. To maintain schools and schoolbuildings. To employ such persons as may be needed. Meetings—as fixed by law or determined by convenience.
Township Meetings	{	When held—by the residents at such time as the law fixes.
		Purpose { To discuss public affairs of the township. To decide upon public measures. To determine public expenditures.
		Powers { Townships are bodies corporate (can sue and be sued). Special powers of townships usually fixed by statute.

CITY OR MUNICIPAL GOVERNMENT

A city has great power and a great influence. The large cities of the world are usually leaders in all that constitutes the essentials of good citizenship. It is of vital importance to the welfare of the individual, to the destiny of the community, and to the future reputation of the state that the city shall be a power for good. To this end it is important, since cities constitute so large a part of our government, that every resident or possible resident of a city shall understand fully the functions and also the

FORMS OF CITY GOVERNMENT

How organized	{	a. By the terms of a general law.
		b. By securing a special charter.
MODEL OF A CITY OR MUNICIPALITY	{	The Mayor { Term 1 to 4 years. Presides at council meetings. Functions partly administrative, partly legislative. Duties mainly executive or appointive.
		The Common Council { Usually one body called Aldermen. Two from each ward, one elected every other year. Must live in ward. Term is one to four years. Duties are mainly to pass ordinances for the city's government and to control city finances.
		Classification { First class—15,000 or over. Second class—2,000 to 15,000.
		Officers { There is no uniform rule as to election or number. Usually the mayor, councilmen, and the heads of certain important departments are elective; the remaining officials get their offices by appointment. <i>Duties.</i> Primarily, the mayor and council and the other officers are expected to unite in having the city accomplish its purpose as a part of local government. The administration of justice; the assessment and equalization of taxes; the improvement and protection of property; the care of public morals; the promotion of civic interest; the welfare of the schools—these and many other matters in the city are dependent upon faithful officials.

COUNTY GOVERNMENT

(The county seat—the center of county government).

PURPOSES

- In the New Eng-land States { Usually for the administration of justice and for convenience in elections.
- In the Southern States { For the administration of all local government.
- In the Western States { To coöperate with the township in local government.
- In the other States { Usually divides the functions of local government with the town-ship and the town.

OFFICERS

We give here the officers of a Minnesota County. This is merely to give a general idea of county organization. Both the names and functions of county officers vary in the different states, but their general purpose is the same in all.

- The County Board { Composed of 3 to 7 commissioners or supervisors, elected by the people, and having corporate powers.
- The County Auditor { Is secretary of the Board. Keeps the county accounts, tax lists, and valuable papers.
- The County Treasurer { Is guardian of the public moneys, financial agent, and collector.
- The Co. Supt. Schools { Usually licenses teachers and has oversight of the schools.
- The Register of Deeds.
- The County Surveyor—Determines property boundaries.
- The County Attorney—Attends to county's law matters.
- Judge of Probate—Protects property of deceased persons.
- County Sheriff—Preserves the peace and serves the courts.
- County Coroner—Investigates suspicious deaths.
- Clerk of the Court—Records court proceedings.
- Court Commissioner—Acts in the absence of a judge.
- Removals—Usually by the governor after trial.
- Vacancies—Generally filled by the County Board.
- Oath and Pay—An oath to perform his duties is required of every official. Compensation (except their own) is determined by the County Board or may be fixed by State law.

FORM OF STATE GOVERNMENT

- PARTS { The Congressional Districts.
- PARTS { The Senatorial and Representative Districts.
- PARTS { The Judicial Districts.
- PARTS { The Counties. { Cities.
- PARTS { The Counties. { Incorporated Villages.
- PARTS { The Counties. { Townships.
- PARTS { The Counties. { Towns.
- } These may overlap, according to legislative regulations.

FUNCTIONS

(These vary according to each state's conception of its duty to its own people. The classification given is intended as suggestive merely).

The
Constituent
Functions

Keeping order.
Protecting persons and property.
Administration of justice.
Determining duties and relations of citizens.
Determining contract rights.
Fixing relations between husband, wife, and children.
Regulation of property rights and liabilities.
Definition and punishment of crime.
Dealing with any danger to or encroachment of state interests.

The
Ministrant
Functions

Regulation of labor and capital.
Regulation of trade and industry.
Regulation of public utilities.
Maintenance of thoroughfares and their regulation.
Care of the public health.
Fostering public education.
Promoting agriculture, forestry, mining, and similar industries.
Caring for the poor and the helpless.
Consideration of sumptuary laws.

OFFICIALS

1. The Governor (See "Executive Branch" above).
 2. The Legislature (See "Legislative Branch" above).
 3. The Judiciary (See "Judicial Branch" above).
- Lieutenant Governor—To preside over the state senate and to act in case of a vacancy in the office of governor.
- Secretary of State—To keep the great seal (when not kept by the Governor); to preserve state papers; to authenticate state documents; to preserve acts of the legislature; to superintend the distribution of public documents, etc.
- State Treasurer—To discharge duties similar to those of the county treasurer, which see.
- Auditor of State—To act as state bookkeeper and in general to superintend the state's fiscal affairs.
- Attorney-General—To represent the state in suits at law and to give legal advice to state officials or to the legislature.
- Superintendent of Public Instruction—To exercise general supervision and control of the educational interests of the state.
- Note.—The officials named above are common to the states generally. In addition most states have:
- Railroad Commissioners—To regulate railroads and their rates.
- Insurance Commissioners—To regulate the operation of insurance companies.
- Land Commissioners—To stimulate immigration and farming, etc.
- Fish Commissioners—To preserve and increase the state fishes.
- Dairy Commissioners—To secure pure dairy products.
- Oil Inspectors—To test oils offered in the state.
- State Board of Health—To improve and preserve public health.
- State Librarian—To care for the state library.
- Adjutant General—To inspect and manage the state militia.
- Mine Inspectors—To supervise the operation of mines.
- Other minor officers as needed.

THE TEACHING OF CIVICS

Methods of inculcating the duties and the principles of government have been indicated above. So important is this subject, however, that some suggestions as to methods of teaching citizenship are given here.

THE PRINCIPLES OF LAW

Under this head older pupils or civic gatherings might discuss:

1. The Principles of International Law.

- | | | |
|-------------|---|---|
| In Peace | { | Sovereignty—what is it? |
| | | Territory—how obtained and held? |
| | | Aliens—what are their rights and relations? |
| | | Intercourse—distinction between diplomacy; treaties; obligations. |
| In War | { | Ultimatum—what is it? How given? |
| | | Reprisal—what is it? When proper? |
| | | Embargo—Purpose; how maintained? |
| Obligations | { | To belligerents. |
| | | To neutrals. |

2. The principles of Municipal Law.

Note.—The term municipal law, as here used, whether written or unwritten, means the rules of law regulating the relations between a state and its citizens, or between the citizens themselves. It is usually divided into Common Law and Equity, and its purpose is to secure right and to punish wrong.

- | | | |
|--------|---|--|
| Rights | { | Political—right to take part in the government. |
| | | Civil — Absolute, relate chiefly to property. |
| | | Relative { Husband and wife; employer and employe.
Parent and child; guardian and ward. |
| Wrongs | { | Tort, a private wrong. |
| | | Crime, a public wrong. |
| | | Arrest, how, why, and when made? |

LESSONS IN CIVICS

Many of the rights and obligations of the citizen may be taught in the home by precept and example. More of civics may be learned by specific lessons on the forms of civil government as outlined above or as found in special text-books and by instruction and illustration whenever opportunity presents. The special work in this line by Daughters of the American Revolution and by various civic associations has a powerful influence in promoting good government. In addition the following is helpful, modified as circumstances may demand.

I. Method in the Home and Kindergarten.

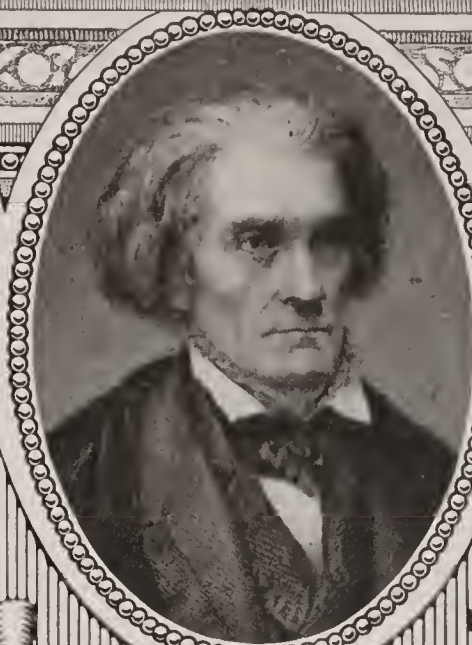
1. Conversation; songs; games.
2. Lessons in Interdependence.
 - Relation of child to other members of family.
 - Services of the grocer, baker, carpenter, farmer.
 - Usefulness of cow, sheep; companionship of birds, cats, etc.

II. Method in the Lower Grades.

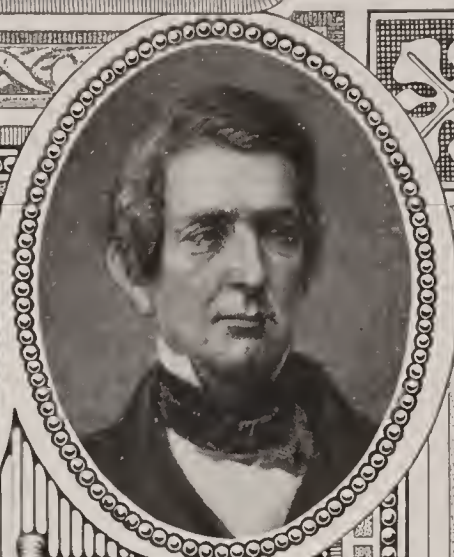
1. Conversation; songs; special programs.
2. Foundation of History.
 - Historic Scenes.
 - Stories of heroes; Indian life; the Pioneers.



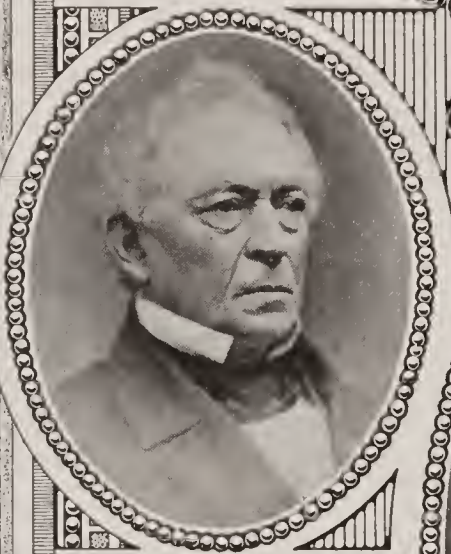
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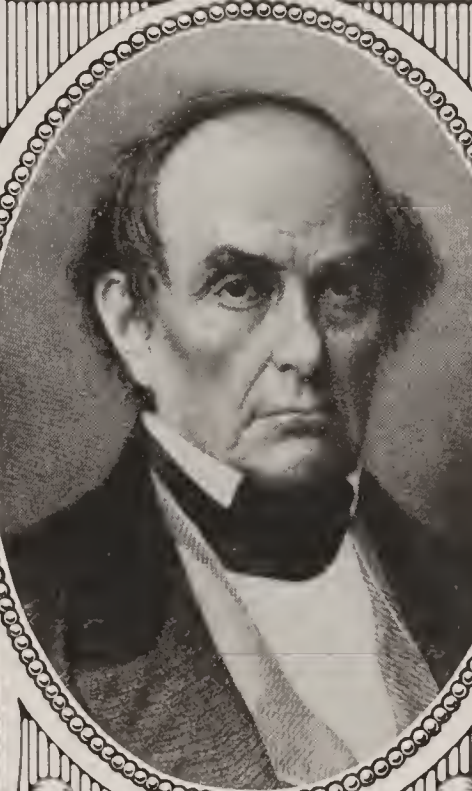
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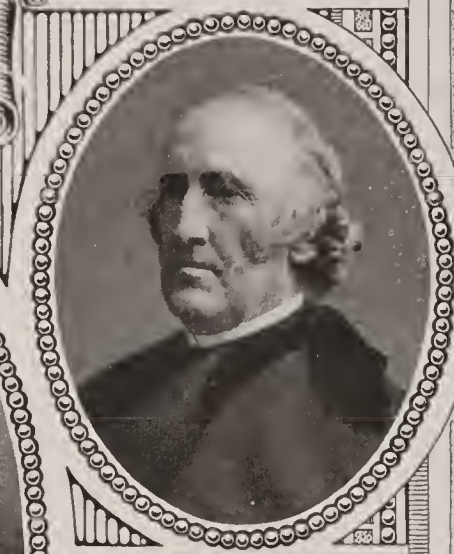
WM. H. SEWARD



EDWARD EVERETT



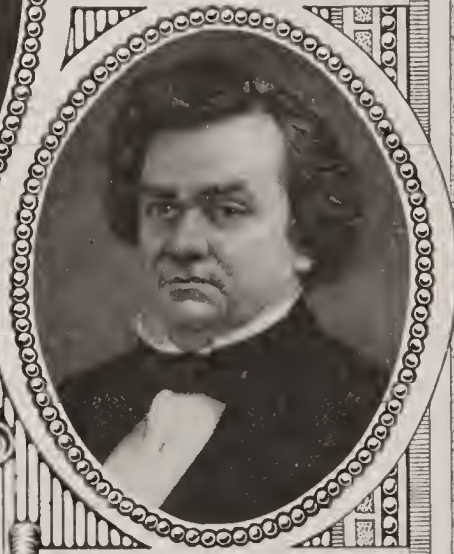
DANIEL WEBSTER



WENDELL PHILLIPS



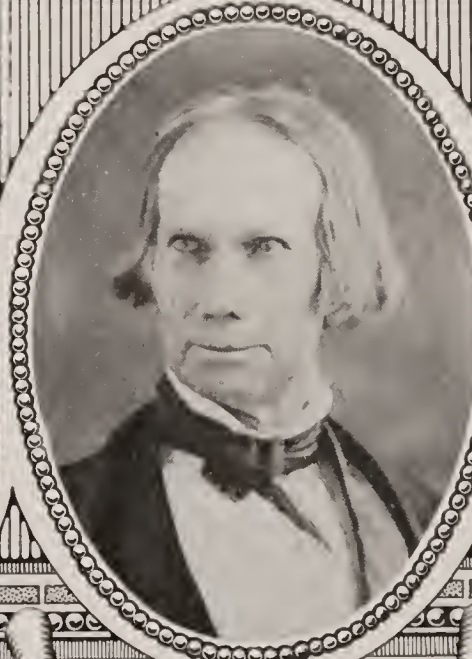
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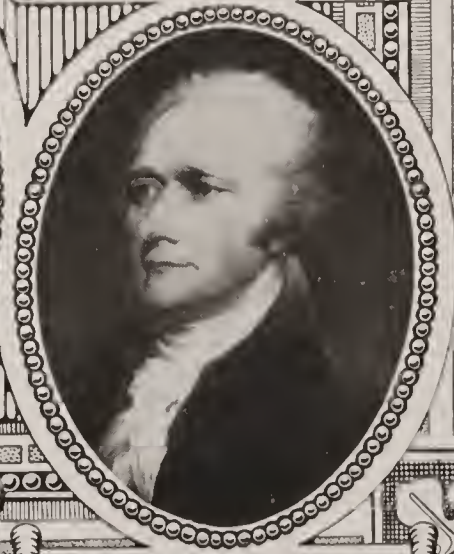
STEPHEN A. DOUGLAS



THOMAS H. BENTON



HENRY CLAY



ALEX. HAMILTON

AMERICAN STATESMEN AND ORATORS



JOHN SHERMAN



JOHN HAY



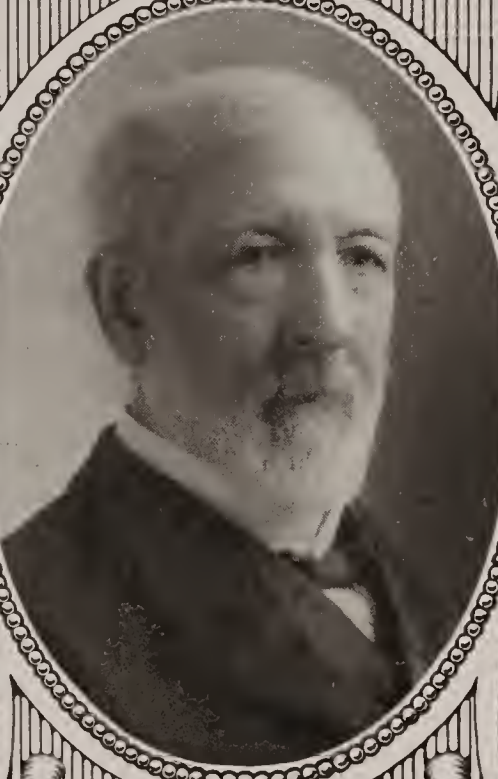
ELIHU ROOT



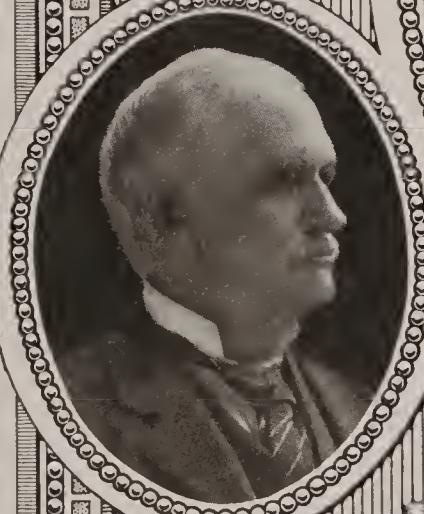
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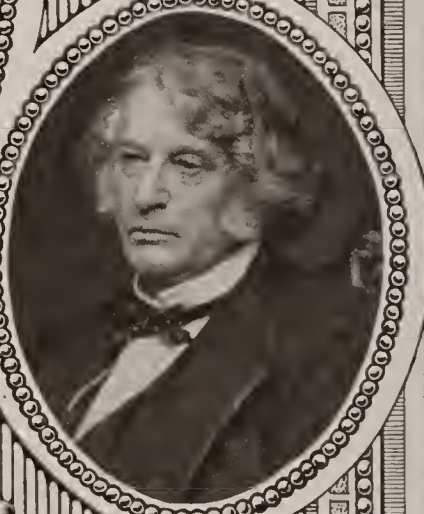
THOMAS B. REED



JAMES C. BLAINE



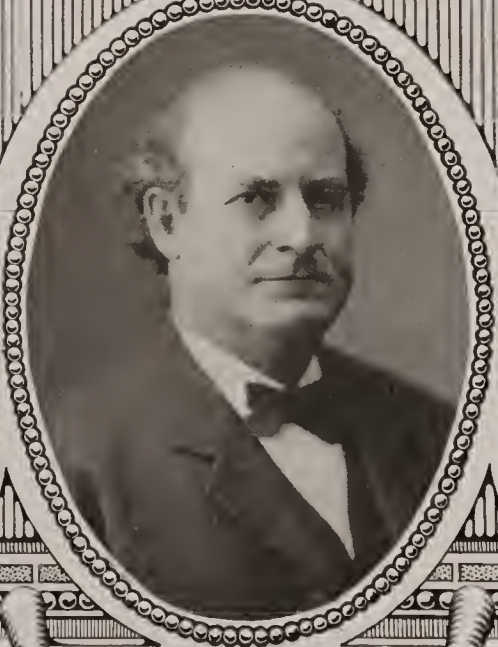
JOHN T. MORGAN



CHARLES SUMNER



JOHN J. INGALLS



WILLIAM J. BRYAN



HENRY W. GRADY

AMERICAN ORATORS AND STATESMEN

Historic anniversaries—Lincoln's birthday, Memorial Day.
Talks or lessons on patriotism.

3. Public Service and National Life.

Postoffices, life-saving stations, lighthouses, libraries, parks, means of transportation, City of Washington.

4. Study of Town or City.

Paved streets, new buildings.

Firemen, policemen, garbageman, postmen.

Beautifying the home and school grounds.

Street cleaning and sprinkling.

Honesty in public officials.

Use and abuse of public parks.

How to promote the growth and welfare of town or city.

5. Duties of a Citizen.

He must not cheat the state or the railroads, nor accept bribes.

He must take an interest in public affairs—must vote.

He must make an honest living.

He must not shirk public duties.

III. Method in the Higher Grades.

1. Class recitations; special topics; written summaries by pupils on blackboards; quiz; Friday afternoon exercises.

2. Aid in comprehension of United States History:

(1). Trade relations and routes of commerce.

(2). Study and comparison of Massachusetts Colony and Virginia Colony.

(3). Social conditions of England at close of French and Indian War.

(4). Conditions in England which led to the formation of the United States government.

3. Government of Home States.

(1). School district, town, township, city (charter), county, state.

(2). Constitution—what it is, why it is.

(3). Departments—legislative, executive, judicial.

(4). The purpose and function of each of these.

4. U. S. Government.

(1). Purpose, parts, growth.

(2). Articles of Confederation.

(3). Constitution.

(4). Domestic and foreign difficulties.

(5). Steps of progress.

(6). Principles of expansion.

(7). Compare conditions in North and South; East and West; city and country.

(8). Inventions and industrial development.

(9). National problems (National and States rights).

(10). The present Congress.

(11). The Nation's resources

a. Natural.

b. Financial.

c. Individual.

In General.

(1). Distinction between natural right and legal right.

(2). The necessity for government and for a division of duties and powers.

- (3). How different organizations may promote good government and how each individual may assist in this work.
- (4). What is meant by civil liberty? How designing persons may take away the citizen's rights.
- (5). Why some things are restricted to the nation; to the state; to the community.
- (6). Why some things are prohibited to the nation; to the state, etc
- (7). Why there may be antagonism between a legislator's interests and his duty.
- (8). Why meetings of the people to discuss and regulate local affairs are important.
- (9). Why a citizen should accept an office; perform jury duty; pay his share of the taxes; or take an interest in public affairs.
- (10). The historical growth of government.
- (11). The leading governments of the world are:
 - IN NORTH AMERICA: The United States, Mexico, Canada, Cuba, Guatamala, Honduras, Nicaragua, Salvador, Panama and Costa Rica. (The last six are usually grouped as "Central America.")
 - IN SOUTH AMERICA: Brazil, Argentina, Venezuela, Colombia, Ecuador, Peru, Chili, Bolivia, Guiana, Paraguay, and Uruguay.
 - IN EUROPE: The British Empire, the Russian Empire, the German Empire, France, Italy, Spain, Portugal, Norway, Sweden, Denmark, Turkey, Greece, Austria-Hungary, Belgium, Holland, and Switzerland.
 - IN ASIA: China, Japan, Persia, Siam, Anam, and Afghanistan.
 - IN AFRICA: Egypt, Morocco, Abyssinia, Congo Free State, and the Union of South Africa.
 - IN AUSTRALASIA: Commonwealth of Australia and New Zealand.

Make a study of each of these to ascertain:

Its form of government.

Its predominant idea.

Its disposition as to world peace. (See HAGUE TRIBUNAL.)

The attitude of its people toward the home government.

What it is doing to keep up with the march of civilization and the relation of this to its history.

Why there are so few states in Asia and Africa.

The right of certain nations (England, Russia, Germany, France, Turkey, etc.) to own, control, or determine the policy of distant sections of the world.

How far its commerce has a bearing upon its permanency.

Is it likely to remain one of the governments of the world? Why?

THE INITIATIVE, THE REFERENDUM, THE RECALL

Under their respective heads in the body of this work, these subjects have received a general and instructive presentation. They are reviewed here because of their intimate association with the subject of civics and because they are live features of the history of the United States. To satisfy the awakened interest and the desire for information on these topics, we give a brief epitome of each subject, together with arguments advanced for and against them as measures of government.

THE INITIATIVE.

1. A proposal of legislation by the people direct.
2. A mandatory substitute for the petition.
3. The legislature must pass an act submitting the proposed measure to a vote by the people.
4. If approved, the measure becomes a law, thus giving the people power to force the enactment of good measures.
5. The law may be general or local (an act or an ordinance).

THE REFERENDUM.

1. Due to the initiative act of the people. Refers the measure to their decision.
2. The vote given may be local or general in its application.
3. Its purpose to correct or remove legislation thought vicious by the people.
4. Its principle seen in the submission of constitutions to the people.
5. The voice of the people in the matter is final, as the object is to ascertain their will.

THE RECALL

1. A method of removing an objectionable official during his term of office.
2. Operative through a petition signed by a certain proportion of the legal voters. The proportion is determined by statute.
3. Intended to supplement the work of the Initiative and the Referendum by its application to individuals.
4. An elected official removed by partial vote is usually given permission to appeal to all the people.
5. Both the Recall and the Initiative and Referendum are intended to give the minority a voice in government as well as to prevent abuses by officials.
6. A recognition of the people as the source of power. Regarded dangerous by some because of its liability to abuse.

ARGUMENTS FOR:

1. The citizens who elect an individual to office should have the power and the right to remove him if found to be corrupt or incompetent.
2. Reserving this power and this right to the people does not detract from the dignity of the office.
3. All proper laws of recall require a sufficiently large vote to prevent the measure being used as a means of gratifying personal or political spite.
4. The measure prevents special interests from electing and retaining in power those favoring these interests against the interests of the citizens as a whole.
5. The operation of a recall is necessarily deliberate and therefore prevents hasty or frenzied action.

(Summarized from *The Chicago Evening American*.)

ARGUMENTS AGAINST:

1. The initiative, the referendum, and the recall, as now proposed, are due to democracy gone mad.
2. They make out of legislatures mere bureaus of registration and take from them all conclusive authority.
3. Stability and independence in office for a fixed period of time are essential. The recall is peculiarly objectionable as applied to the judiciary. Judges will be led to study public opinion rather than law or equity.
4. If an official proves unworthy, the law now provides a remedy in impeachment and removal by an impartial court.
5. The fathers made this a representative, not a direct government, and the recall will make cowards.

(Summarized from an address by Archbishop Ireland.)

BUSINESS ECONOMICS

I. THE PARTIES ENGAGED IN BUSINESS.

1. The **employer**, who usually furnishes the capital.
2. The **employee**, who usually furnishes the labor.
3. The **general public**, which usually consumes the product.

It should be remembered that often the employer works just as hard as the employee; that the employee frequently supplies part of the capital; and that the term "general public" embraces all citizens—young and old, male and female, who therefore have a rightful interest in every enterprise. (See "Foundation for Promotion of Industrial Peace.")

II. PARTIES WHO MAY CONDUCT BUSINESS.

1. The **private individual**.
2. The **partnership or firm**.
 - a. The general partnership, unconditioned.
 - b. The limited partnership, having agreed conditions.
3. The **corporation**.
 - a. The business corporation, designed to carry on some mercantile, manufacturing, mining, or other enterprise.
 - b. The municipal corporation, to manage the affairs of a city, etc.
 - c. The educational corporation, to handle some form of instruction or training.
 - d. The charitable corporation, to care for some charity.
 - e. The religious corporation, to foster some church organization or interest.
 - f. The insurance corporation, to protect life or property or to provide for a beneficiary.
 - g. Miscellaneous incorporations.
4. The **agent or representative**.
 - a. The general agent, having the power of the principal.
 - b. The special agent, having limited authority.
5. The **executor or administrator**.
 - a. Executor, appointed by will, usually under bond.
 - b. The administrator, appointed by some court, gives bond.

NOTE—Each is to handle the estate of a deceased person, and the duties and liabilities are usually fixed by statute.

6. The **guardian**.

The guardian is given a naked power, without personal interest, to execute some trust for the benefit of another party, termed a ward.

7. The **receiver in bankruptcy**.

The receiver's duties and liabilities are usually fixed by the court which appoints him.

8. A **nation, state, or tribe**.

With or without limitation by a constitution, a nation, state, or tribe has authority to conduct its own business.

III. DIFFERENT KINDS OF BUSINESS.

1. **Commerce**, or buying and selling goods or some other product.
2. **Farming**, or raising crops by cultivation.
3. **Lumbering**, or making timber out of trees.
4. **Manufacturing**, or turning out articles for use (usually from the crude material).
5. **Mining**, or getting ores, metals, or precious stones from the ground.
6. **Publishing**, or the making of books, papers, etc.
7. **Teaching**, or training the young for the duties of life.
8. **Railroading**, or transporting persons or freight from one point to another by means of cars.
9. **Navigation**, or transporting passengers or freight by means of ships, boats, etc.

BUSINESS LAW

I. THE CONTRACT, THE PATENT, THE COPYRIGHT, THE TRADEMARK

1. **The contract** or agreement is the compact between parties to a negotiation or business undertaking.

Certain elements are vital to it.

a. Conditions of enforcement.

- (1) The contract may be oral or written.
- (2) The agreement must be mutual.
- (3) The parties must be competent to make a contract.
- (4) The thing to be done or not to be done should be clearly stated.
- (5) There should be a substantial consideration.
- (6) The consideration must be legal.
(Damage to be done another, performance of a fraudulent or immoral act, impossibilities, etc., are usually held not subject to contract.)
- (7) A time must usually be named for the performance of a contract.

b. Kinds of contracts.

- (1) *Oral contract*, made by spoken words.
- (2) *Written contract*, whose terms are in writing or print.
- (3) *Implied contract*, whose interpretation, in case of a dispute, is made by a court or jury.
- (4) *Express contract*, whose terms and limitations are expressly set forth.
- (5) *Joint contract*, in which all the parties agree to support the terms of the contract.
- (6) *Several contract*, in which each party agrees to be bound by all the terms.
- (7) *Executory contract*, or one that stipulates something to be done at a future date.
- (8) *Conditional contract*, the execution of which is dependent upon certain circumstances.
- (9) *Executed contract*, or one whose conditions have been carried out.

c. The execution of a contract is dependent upon certain elements, the more important of which are given below.

- (1) The thing sold must exist or be capable of delivery.
- (2) The law gives damages, but does not enforce performance.
- (3) A court of equity may enforce performance.
- (4) Fraud rescinds a contract.
- (5) One side alone cannot terminate a contract.

- (6) Unless specifically stated otherwise, the *law of place where made* holds.
- (7) A contract made by a minor is voidable but not necessarily void.
- (8) A contract of a competent person with a minor is enforceable as to the competent party.
- (9) Idiotic, insane, and stupidly drunk persons, as well as persons under duress, or belonging to a country at war with one's native country, are usually held not competent to make a contract.
- (10) Performance of the thing agreed is necessary to the enforcement of a contract.
 - (a) Voluntarily leaving work unfinished, or quitting employment before the term has expired, forfeits pay for the time served.
 - (b) Dismissal without good cause does not forfeit any part of the wages agreed to be paid.
 - (c) Sickness or injury may give a legal right to pay for the time served. If due to the neglect of the employer, it may form a basis for a claim of damages.
- (11) A seller has the right, under certain conditions, to stop goods in transit.
- (12) Warranty at the time of a sale, by principal or authorized agent, direct or implied, is binding.
- (13) Insolvency, false pretence, the bucketing of stocks, a withdrawal before acceptance, or failure to execute within a time specified, may all be pleaded as a legal reason for not executing a contract.
- (14) Exceeding his instructions on the part of a special agent relieves the principal of liability.
- (15) The requirements of a lease are limited by the statutes or by equity.
- (16) A contract may be limited or terminated by conditions within itself.

MODEL FOR A CONTRACT

John Doe, of (*place of residence, business, or profession*), and Richard Roe, of (*place of residence, business, or profession*), have agreed together, at (*place*), on (*the day should always be named*), and do hereby promise and agree to and with each other, binding themselves and their assigns or heirs, as follows:

John Doe, in consideration of the promises hereinafter made by Richard Roe and of (*here insert any other consideration which John Doe has*), agrees and promises to and with Richard Roe, that (*here state explicitly, in accordance with the suggestions contained above, the whole of what John Doe agrees to do*).

Richard Roe, in consideration of the promises and agreements of John Doe as stated herein, and in consideration of (*here insert any other considerations which Richard Roe has, if any*), hereby agrees and promises to and with John Doe, that (*here state explicitly the whole of what Richard Roe agrees to do*).

Witness our hands to copies of this agreement, made this (*date*) day of (*month*), (*year*).

Witness:

(*Richard Brown.*)

(*Thomas Mullen.*)

JOHN DOE.

RICHARD ROE.

2. The Patent.

- a. Protects the inventor or discoverer for seventeen years.
- b. May be secured by a written application to the Commissioner of Patents from the inventor or discoverer, accompanied by a model of the invention or a full description of the new art, etc.

- c. The new article must not have been sold, patented, or publicly described in the United States for two years prior to the application.
- d. The lawful fees (\$15 for filing application, \$20 for the patent) must be paid in advance. A joint patent may be issued.
- e. The party applying for a patent must show the principle of operation, the usefulness of the article, the improvement claimed, etc., and the application must have two witnesses.
- f. A caveat as notice of claim or to secure time to complete an article, etc., copies of patents, designs, etc., and records of assignments, may be secured on payment of the regular fee.
- g. A patent may be legally assigned.

3. The Copyright.

- a. Protects the owner 28 years; may be reissued for 14 years.
- b. May be secured by author, inventor, designer, or proprietor. Covers books, charts, maps, compositions (literary, dramatic, musical), photographs and negatives, engravings, cuts, paintings, chromos, models, designs. It may be assigned.
- c. A printed title-page or other evidence of title is required to be filed in Washington, D. C.
- d. Two complete and perfect copies must be mailed to the Librarian of Congress on or before the day the article appears; also a copy of any revised issue.
- 4. The **Trade Mark**, or established **Business Name**, is protected by law.
- 5. For the laws governing **Power of Attorney** see the statutes of the several states.

BUSINESS ART

I. ADVERTISING, SOLICITING, BUSINESS CORRESPONDENCE

Within the limitations and purposes of this volume it is impossible to give more than a few facts and special suggestions under each head. These will all be found very helpful and rich in suggestion to every business man, especially in connection with articles found elsewhere in this series.

1. Advertising.

a. Kinds of advertising.

- | | | |
|---|---|--|
| (1) NEWSPAPER.
(Determined by
the purpose.) | { | General (abroad).
Local (at home).
Display (large, showy).
Classified (brief). |
| (2) WINDOW DRESSING.
(To draw attention
and awaken desire.) | { | Size of window, large.
Background, appropriate.
Colors, study light effects.
Method, attract the buyer.
Display, limited in number of articles.
Novelty, requires change. |
| (3) SIGNS. | { | Permanent, study material.
Temporary, always neat.
Printed. { Letters plain.
Style concise.
Painted. { Not overcrowded.
Attractive.
Electric. |

(4) MISCELLANEOUS.

(Demonstration, circularizing, sampling, etc.) Depends upon place and purpose.

b. Mediums used.

- | | |
|--|------------------|
| (1) The local newspaper, for home trade. | |
| (2) The general newspaper, for trade at large. | |
| (3) The special publication. | |
| (4) The billboard. | { Not offensive. |
| | |
| (5) The street cars. | { Tasteful. |
| | { Comprehensive. |
| (6) Literature— | { Letters. |
| | { Circulars. |
| | { "Cuts." |
| | { Catalogues. |
| | { Creditable. |
| | { Catchy. |

c. Purposes in view.

- (1) To make a sale.
- (2) To keep before the public.
- (3) To learn the value of a medium.
- (4) To find the best method, i. e., the best selling points, and how best presented.
- (5) To make or create a want without seeming to do so.

d. Cost to the business.

- (1) What part of the fixed charges.
- (2) Immediate results; their character.
- (3) Ultimate results.
- (4) Effect on, of type used.
- (5) How affected by illustrations.
- (6) Where and how recorded.

2. Soliciting.

- a. The regular customer must be cared for but not annoyed.
- b. The probable customer, or "prospect," should be studied before being approached.
- c. The doubtful "prospect" should be strengthened wherein he is hesitating.
- d. The best method depends upon conditions, the object (insurance, subscription, advertising), etc.
- e. A systematic record should be kept.

3. Business Correspondence.

This has now become a great art. So many are the ways in which business correspondence is used, and so important has the right conduct of its correspondence become—not alone to growing concerns but to well-established firms and corporations—that an efficient correspondent commands a large salary. Special schools for the training of correspondents have been established, and numerous books on the subject have been published.

a. Objects in view.

- (1) To secure business in the best way by attracting custom and avoiding the assumption of interest in the customer.
- (2) To secure business advantageously by making it to the customer's interest to deal with the house.
- (3) To retain business already secured.
- (4) To collect money due.
- (5) To handle complaints.
- (6) To deal with a branch house or with an agent.

b. Elements of a good business letter.

- (1) Its *make-up* should show good stationery, an attractively printed letter-head, correct spelling and capitalization, neat and not blurred typography, proper paragraphing, and short, concise sentences.
- (2) In its *method of expression*, the business letter gives careful thought to the following points:
 - (a) A distinct tone, characteristic of the firm sending out the letter.
 - (b) The right manner for the party to whom the letter is to go.
 - (c) Avoidance of a patronizing tone.
 - (d) A bright, pertinent, but tactful method of attracting the attention of the recipient and of making him seem to discover more merit in the article than the writer thought of.
 - (e) Originality, variety, ingenuity—but all so well thought out and so skillfully expressed that the reader does not realize that he is being influenced.
 - (f) Nothing that will antagonize the receiver of the letter so that he don't care whether he ever answers it or not.
 - (g) Studious courtesy, but avoidance of fawning or flattery.
 - (h) Avoidance of such an air or tone of criticism as puts the recipient on the defensive or as leaves a sting.
 - (i) Such a way of putting things that the recipient feels he is neglecting his own interests or his duty if he does not do the thing suggested in the letter.
- (3) In its *content*, or subject matter, a good business letter keeps the following points in mind:
 - (a) What the writer wants to say.
 - (b) What the writer wants the reader or recipient to know.
 - (c) What the writer desires the reader to think and to want.
 - (d) What the reader ought to know. (This involves the art of concealing without appearing to conceal. It also involves the art of using technical expressions when they give force and clearness; and of avoiding them when they will confuse the mind of the party receiving the letter. It further involves the art of simplicity without offence.)
 - (e) The use of good, clear, forcible English. Stale expressions, cut-and-dried terms, lack of earnestness, want of sincerity, are all to be studiously avoided. Saying the thing to be said clearly, then quitting, is the highest letter-writing art.
 - (f) Never losing sight of the main things—that the letter is an argument; that it is an argument to a person at a distance and not a conversation with a person at hand; that the communication has a definite purpose; that it should practically force a reply; and that the customer should be brought to your way of thinking without feeling that he is “knuckling under.”
 - (g) That the correspondent should follow the instruction of the Irish sergeant to the raw recruit: “Step out here and look at yourself.” He should review his own letters; look for his weak points; see how he can improve upon the letters of others or get valuable suggestions from them; and be alive, growing, getting stronger.

- (4) The *length* of a business letter is so dependent upon conditions that it is difficult to give rules governing it. The whole art here is involved in this—make the letter long enough to say what it ought to say, then quit. The laws of the human mind should be kept in view—attention, interest, desire, action.
- (5) The *collection letter* has a distinct purpose in view. It should never lose sight of that fact. Its object is to get money that is due. The things to be kept in mind are:
- (a) That the debtor shows an unwillingness to pay what he owes.
 - (b) That he is trying to avoid immediate payment—possibly payment altogether.
 - (c) That this may be the result of bad business training only—may, in fact, be partly the fault of the house that he owes.
 - (d) That his friendship and his custom may be desirable; or,
 - (e) That the account is one on which to get the money, and to get it quickly.

Whether to be deliberate, sympathetic, or emphatic in a collection letter is something that common sense and circumstances must decide.

- (6) Letters handling *complaints*. These should have the following features:
- (a) A conciliatory tone.
 - (b) A clear understanding of the trouble.
 - (c) A willingness to recognize the other fellow's way of looking at the trouble.
 - (d) A disposition to do the fair thing—not just to gain an advantage.
 - (e) A method of showing a customer wherein he is wrong (if he is wrong) without antagonizing him. This requires diplomacy.
 - (f) Such immediate action as quiets the complainant and makes him feel that he is receiving respectful attention.
- (7) *Preserving correspondence* and its contents.
- (a) The letter file, its form and index.
 - (b) The card system of recording contents.
 - (c) The classification.
 - (d) The distribution.
 - (e) The follow-up.
 - (f) The study for suggestions.

INVESTMENTS

I. CORPORATIONS, BONDS, STOCKS, NOTES, MORTGAGE, REAL ESTATE

An investment is the exchange of money or other property for bonds, stocks, goods, real estate, or other security supposed to be profitable. It is generally made with the desire to secure a regular or larger income. An investment may be considered from several standpoints:

1. The party issuing the security.
2. The character of the security.
3. The purpose of the investor.
4. The choice of an investment.

It is important that a clear distinction be made between a *regular investment* and a *speculative investment*. In the former the first consideration is safety of principal.

and interest or dividend, the amount or rate of income being subordinate; in the latter more or less risk is assumed for the purpose of securing a larger return upon the sum invested. We will now consider the investment in itself.

II. THE PARTY ISSUING THE SECURITY

1. The Corporation.

- a. Definition—an association of persons authorized by law to transact business.
- b. Purpose—a combination of capital and effort.
- c. Origin—a charter, defining its composition, object, and limitations, granted by the state.
- d. Kinds—business, municipal, charitable, educational, religious, patriotic, etc.
- e. Liability. This varies according to the nature of the corporation and the law of the state issuing the charter. In a *limited corporation* the stockholders are not liable to the corporation's creditors beyond the amount which they have paid or agreed to pay for their holdings. In an *unlimited corporation* the stockholders may be assessed for the company's debts to the amount of the difference between what they have paid and the par value of their holdings—or even more. (See National Banking Law.) The corporation itself is liable for agreements made by itself or by its duly authorized agents, for violations of the law, etc. Its directors may be held liable for fraud, for negligence of duty, for violation of the provisions of their charter, etc.
- f. Application for a charter. The charter must be applied for by individuals. They must be legally competent to conduct business. They must be at least three in number. In some cases they must be citizens. The application must contain the proposed name, location, objects, capital, par value, duration, amounts subscribed, by whom, at what address, and any other feature specified by law. (In some instances a corporation is authorized by a general law.)
- g. Powers. These are usually regulated by statute. In general, a corporation is authorized: to make agreements or contracts; to issue stock or bonds (or both); to have a corporate seal; to take whatever steps may be necessary to carry on its business; to sell, buy, or hold property (it is sometimes forbidden to own stock in a competing corporation or to hold certain real estate); and to dissolve.
- h. It offers for investment common stock, preferred stock, cumulative preferred stock, or bonds.
- i. Corporations are subject to state or national control and supervision (or both).

2. Building and Loan Associations.

- a. Are usually incorporated.
- b. Purpose—to raise funds by mutual subscription to be loaned members (generally upon mortgage) so they may buy real estate. Sometimes the company buys property to sell to its members.
- c. Kinds—terminating or permanent. A *terminating* association ends at a fixed date or upon the accomplishment of a specified purpose. A *permanent* association is limited in time only by its charter or by the law.
- d. Aim—to assist members to secure homes who could not otherwise pay for them.
- e. Investments offered—loans and mortgages.

3. The Real Estate Dealer.

- a. May be an individual, a partnership, or a corporation.
- b. Handles improved and unimproved city or town property, farm lands, mortgages, and leases.
- c. See "Contract," "Liability of Agent," "Corporation," etc.

III. CHARACTER OF SECURITIES

1. Kinds.

One may invest in a bond, a stock, a mortgage, a lease, a piece of real estate, merchandise of some kind, a note, etc. A regular investment is made for the purpose of securing income or ultimate profit. A speculative investment is entered into with the chance assumed of sale at a handsome profit or of loss.

2. Bonds.

- a. A bond is a lien or debt of a corporation.
- b. It promises to pay both principal and interest. A consideration need not be named.
- c. It should have the seal of the corporation and the signature of the authorized officials.
- d. It is generally protected by a mortgage in the hands of a third party as trustee.
- e. Its obligation is usually limited by the condition or conditions named in the bond.
- f. Ownership may be determined by possession if the bond is not registered, or by proof.
- g. Kinds. Bonds may be classified from different points of view.
 - (1) A *registered bond*—one entered in the owner's name.
 - (2) An *unregistered bond*—one whose ownership passes by possession.
 - (3) A *gold bond*—one whose principal and interest are payable in gold of standard weight and fineness.
 - (4) A *coupon bond*—one having detachable slips showing the amount of interest due on a given date.
 - (5) *Government, state, municipal bond*—one issued by party named under authority of law.
 - (6) A *tax bond*—one receivable for taxes.
 - (7) "A," "B," "C," or "1," "2," "3," bonds—bonds issued in series so described.
 - (8) *Serial bond*—one payable in a regular series.
 - (9) *Refunding bond*—one issued to take up a preceding debt.
 - (10) *Called bond*—one called for payment and on which interest ceases after a certain date.
 - (11) *Divisional bond*—one protected by a certain part of a property.
 - (12) *Extension bond*—one secured by additions built or bought with the proceeds.
 - (13) *Blanket bond*—a consolidated bond on all the property.
 - (14) *Debenture bond*—one whose interest is payable after meeting fixed charges and running expenses.
 - (15) *Terminal bond*—one issued to pay for terminal facilities.
 - (16) *Guaranteed bond*—one whose payment is guaranteed by some other party.
 - (17) *Plain bond*—one not protected by mortgage, sinking fund, or collateral security.
 - (18) *Collateral trust bond*—one protected by securities of another company.

3. Stock.

A bond owner is different from a stockholder. The former has a lien upon the property of the corporation, is not liable for its debts, and has a claim for principal and interest, enforceable in law, whether the company is making money or not. He is entitled, however, only to the interest as it falls due and to the principal at the end of the time for which the bond is issued. While the stockholder is a partner in the business and has certain liabilities, he is entitled to share in all the profits and in the entire assets (unless otherwise provided in articles of incorporation).

- a. *Amount*—is fixed by the charter of the corporation.
- b. *Par value*—is discretionary if not fixed by the charter.
- c. *Paid stock*. This is stock for which an equivalent is supposed to have been delivered to the company. (Some states require all the stock to be paid for before the charter is issued.) It may be paid for in money, in certain rights transferred, in property, in services, etc.
- d. *Common stock*—general stock issued without special privileges.
- e. *Preferred stock*—stock entitled to a certain part of the profits before anything is allotted to the common stock. It may also have a first claim upon the assets of the company.
- f. *Cumulative preferred stock*—preferred stock on which an unpaid dividend accumulates and has a claim upon future earnings prior to that of the common stock.
- g. *Promotion stock*—shares allotted to or taken by the promoter for his services.
- h. *Pooled stock*—shares not negotiable or not transferable until after a certain date.
- i. *Non-assessable stock*—shares which cannot be legally assessed by the company or its creditors.
- j. *Treasury stock*—variously defined. Usually it is stock belonging to the company and whose price goes into the treasury for company purposes (as distinguished from promotion stock, for example).
- k. *Watered stock*—shares nominally paid for and which pretend to represent money or its equivalent paid to the corporation but which represent a fictitious value.
- l. *Stock subscription*—an agreement to take a definite number of shares of stock at an agreed price and to pay for the same. (A subscriber cannot withdraw after the required amount or number is obtained.)
- m. *Stock certificate*—a paper issued by a corporation, under its seal and the signature of the authorized officials, declaring that the ownership of a given number of shares is recorded upon the books of the company in a name written or printed upon the face of the certificate. Upon the back of the certificate is a blank form for its assignment—which assignment should always be witnessed. (A certificate issued to trustees should show the nature of the trust.)
- n. *Rights of a stockholder*.
(The preferred stockholder does not always have the same rights and privileges as the common stockholder. For example, he may not be allowed to vote in an election of officers.)
 - (1) To share in the dividends or profits of the company.
 - (2) To share in the assets of the company in case of dissolution.
 - (3) To examine the books and records of the company, but not to interfere in its management except in case of fraud or irregularity (which he may correct by legal procedure).

- (4) To take part in stockholders' meetings in person or by written proxy.
- (5) To vote his stock, in person or by written proxy, with the voting power assigned to it by the charter or by-laws.
- (6) To have his stock transferred promptly in case of sale. Delay may interfere with the sale or cause him a liability.

4. The Mortgage.

A mortgage is a lien upon property to secure a debt. In real estate transactions it is usually called a mortgage deed.

- a. It is void when the debt has been paid.
- b. It is voidable, in whole or in part, if secured by fraud or misrepresentation.
- c. Failure to record a mortgage may lose it precedence or value.
- d. Its validity may depend upon strict compliance with the law of the state where the property is located.
- e. Unless so stated in the mortgage, the party giving it has no right in the real estate beyond that of paying the debt and redeeming the property. The law usually gives a mortgagor a certain time in which he may redeem his property, under certain conditions, after the mortgage becomes due; and the courts usually allow him to sell his equity or to give a second mortgage (subject to the rights of the holder of the first mortgage. No subsequent mortgage can take these away).
- f. The "power of sale" mortgage avoids the redemption provision of the law by containing an agreement that the property may be sold, on terms agreed upon, within a given time after the mortgage falls due if the excess above debt and charges be paid to the mortgagor.
- g. Without a specific agreement, the party coming into possession of mortgaged land is entitled to any buildings or other improvements.

5. The Lease.

This is a contract by which a tenant agrees to pay a given price for a specified time for land and that which is on it. In the cities especially it has become a very important feature of barter, trade, or investment.

- a. It may be for a single month or for a number of years, the extreme limit usually being 99 years.
- b. It may be for 198 years in some states.
- c. It is usually partly protected (as is also a mortgage) by insurance on buildings.
- d. If not specified in the lease, the time for paying the rent is determined by common usage.
- f. Unless provided in the lease, the tenant is not responsible for taxes.

6. The Note.

(See full treatment of this form of investment elsewhere in this article.)

7. Real Estate.

(See "Contract," "Agent," "Mortgage," "Bond," the common law.)

IV. THE PURPOSE OF THE INVESTOR

Investors, according to their purpose, may be described as:

- 1. Those wishing a safe, permanent investment with a regular income.
- 2. Those wishing a safe investment, with a regular income, for a given period of time.

3. Those wishing a safe short-time investment.

To all of these two facts apply: (1) An inexperienced person is not the best judge of the safety of a security; (2) the rate of income upon a safe security is always small. A higher rate implies some element of risk.

4. Those wishing an investment with a high dividend rate and willing to take some risk in order to secure it.
5. Those wishing to develop some industry, believing it will ultimately prove profitable, though at present causing or threatening a loss.
6. Those wishing to open a new line to a regular business, believing it will prove productive of a good trade.

These are regular investments; but they are, in the nature of things, more or less speculative. They require investigation, foresight, a study of market, and other conditions, etc.

7. Those buying stocks and bonds on the exchanges, the curb, etc., with the intention to sell quickly at a profit.
8. Those buying securities of an uncertain value, believing they will bring large returns at small cost.

These are pure speculations, not regular investments, and always involve considerable risk. They frequently result in loss.

V. HOW TO CHOOSE AN INVESTMENT

A careful study of the preceding division of this article shows that no absolute rule on this subject can be given. Especially is this true of those in groups 4, 5, and 6. Conditions and purpose, the character and fitness of the persons handling the enterprise, the amount of hazard one can afford or is willing to assume—all are factors in the solution of the problem.

For those in groups 1, 2, and 3, however, some general principles may be safely followed. These principles can be studied with profit by all investors.

General Principles.

1. Consult a reliable and experienced broker or banker.
2. Inform him of the amount available for investment.
3. Decide whether you wish bonds, stock, a note, real estate, a mortgage, or a lease.
4. State whether you wish a permanent, a time, or a short-time investment, etc.

Bond Buying.

1. If a bond is desired, see that its face states that principal and interest are payable in gold.
2. See that the security protecting the bond is ample.
3. Do not buy a bond whose foreclosure, in case of defaulted interest, requires a certain per cent of the bondholders to petition the trustee and guarantee him.
4. If the bond is registered, have it transferred by the proper party at once.
5. If secured by real estate, see that it is purchase-money real estate, unincumbered by prior lien, has good title, and is not over-bonded.
6. Debenture bonds, collateral trust bonds, bonds of a company whose earning power is not proven, refunding bonds, and plain bonds should be bought only after close scrutiny and thorough investigation.
7. Do not buy bonds in a company whose officers are speculators, whose business methods are lax, and which is not characterized by unquestioned honesty of management.
8. Government, state, and municipal bonds are usually safe, but the government may be unstable, the issue may not be legal, the bond issue may be beyond the revenue, etc.

9. The value of the bonds of a corporation—especially a public utility corporation—are affected by the length and character of the company's charter, by its ordinance or franchise rights, by competition, by its earning power and how this may be affected by business depression, and by the care with which its officials handle replacement problems and the public's interests. The replacement value should be greater than the market value.
10. Keep in mind: (a) That a blanket bond is subject to prior liens; (b) that terminal bonds may affect the value of bonds on the road; (c) that debenture bonds are about on a par with common stock; (d) that the payment of prior obligations increases the value of a bond issue; (e) that underlying issues are usually good evidence that a bond is safe.

Stock Buying.

1. Before buying stock investigate the liability that goes with it.
2. See that the certificate is genuine and properly issued.
3. Look with suspicion upon any erasures, and inquire of the company before investing large amounts unless with a reputable banker or broker.
4. Do not ask for the name of the original owner; for his reason for selling; for the number of the certificate until a satisfactory guarantee is given; or for a transfer to your name before the stock is paid for.
5. If a woman owning stock marries, the stock should be in her marriage name.
6. See that the stock is not encumbered and can be legally transferred.
7. Until a stock is transferred, the holder "of record" can exercise the rights of a stockholder. Withholding stock from transfer is at the purchaser's risk.
8. A listed stock has usually a ready market but is subject to manipulation.
9. No hard and fast rule can be given for buying stocks. Many of the principles and facts given in connection with bond-buying are applicable. But conditions, both local and general, may decide the question of the advisability of a stock investment. In general: (a) The company should have a definite earning power; (b) it should have a reputable business standing; (c) its assets should show a good margin above its liabilities (the more removed from a mine lessens the ultimate value of the stock); (d) its management should be honest and judicious; (e) its officers should be law-abiding; (f) it should have a record for prompt and steady payment of dividends; (g) its charter, franchise, and field of operation should all be upon a sound business basis.

The Note.

The note is usually bought when one wishes a short-time investment. Short-time notes are frequently offered by railroads and large industrial corporations in order to obtain ready money for some urgent expense. They are usually safe. The advantages of a negotiable note as an investment are: (a) Generally, it can be turned into cash promptly; (b) if sound, it is promptly accepted as collateral; (c) it may furnish a larger income safely; (d) it may have a number of endorsers and each indorsement may add to its soundness; (e) it may facilitate business transactions; (f) it may be guaranteed; (g) if stolen, it does not benefit the thief if specially endorsed.

Real Estate.

Real estate is often urged as the ideal investment. It has proved quite unprofitable and has caused much loss. Farm lands and city or town lots—especially those at a distance—are frequently tainted with fraud. Their character, location, and productiveness are often grossly misrepresented. Climatic conditions, a wet soil, the necessity for fertilizers or irrigation, market facilities, an amount sufficient for support till a crop is raised, the

fitness of the buyer for farm life, the improvements—these and other things are matters to be weighed carefully before buying a farm. Yet a good farm in the hands of a thrifty and competent farmer is a money-maker.

The Real Estate Mortgage.

The real estate mortgage is a good investment if for only about half the actual market value of the property, if the title is clear, if no other lien precedes, if the buildings are insured, if the mortgage is promptly and properly recorded, and if the rate of interest is satisfactory.

The Real Estate Lease.

A lease is a contract. Its expressed conditions are binding; its implied conditions may be. Whether it is a profitable investment is wholly a matter of conditions.

Banking and Brokerage Terms.

Below will be found the terms or expressions most commonly used by bankers, brokers, bond houses, and stock exchanges. The list is not exhaustive, but sufficiently large to be of service to the average business man, investor, or speculator.

"A" bond. One of the first series of bonds designated alphabetically.

Absolute endorsement. Binds the indorser to pay, if parties whose names appear prior to his fail to do so.

Accrued dividend. The dividend due but unpaid.

Accrued interest. The interest due when the transaction takes place.

Actual assets. Property whose value is certain.

Allotment. Share or portion assigned.

Backing. Indorsement or support.

Ballooning. Inflating a stock value.

Bear. A speculator who tries to depress prices.

Bearing the market. Trying to force prices down.

Blind pool. A pool left to the manager's discretion.

Bond. An obligation to pay money.

Board of trade. A commercial organization.

Bonus. A premium or donation.

Book value. Stock value based on earnings.

Bucket Shop. A place where stocks are bought and sold on margins, no real transaction in certificates usually taking place.

Bull. A speculator who tries to advance prices.

Buyer 5, 10, 20, etc. Bought for delivery on any day demanded by the client within the number of days specified, a day's notice being given.

Call. A contract binding one to deliver on demand at a given price.

Call loan. A loan payable on demand.

Cats and dogs. Worthless or poor securities.

Certified check. A check whose payment is guaranteed by a bank.

Close corporation. A company whose stock is not on the market.

Collateral loan. A loan protected by a pledged security.

Consolidated bond. A bond taking up or replacing two or more previous issues.

Cooked. Manipulated or garbled.

Corner. An effort to secure a monopoly.

Coupon. A detachable form showing amount of interest or dividend due on a certain date.

Cumulative dividend. A dividend which cumulates, if not paid when due, and which takes preference over any dividend on common stock.

Dividend. A profit paid to a stockholder and supposed to have been earned.

HOW A CHECK IS USED IN BUSINESS



Chicago, Sept. 30th 1911 No. 250

The First National Bank
of Chicago

Pay to the order of Mary E. Jones \$ 10⁰⁰

Ten Dollars

For Bal. salary to date John D. Smith

1. MISS JONES RECEIVES A CHECK FOR THE BALANCE OF HER SEPTEMBER SALARY.



2. MISS JONES GIVES THE CHECK TO HER LANDLADY IN PAYMENT FOR BOARD. SHE ENDORSES THE CHECK BY SIGNING HER NAME ACROSS THE BACK AT THE LEFT END.



3. THE LANDLADY GIVES THE CHECK TO HER GROCER AND ENDORSES IT AGAIN.



4. THE GROCER DEPOSITS THE CHECK IN HIS BANK, ENDORSING IT AS DID THE OTHERS.



5. THE CHECK IS SENT BY THE BANK TO THE CLEARING HOUSE WITH MANY OTHERS, ASSORTED INTO AS MANY PACKAGES AS THERE ARE BANKS FROM WHICH TO COLLECT.

HERE TWO CLERKS FROM EACH BANK IN THE ASSOCIATION MEET AT A CERTAIN HOUR EACH DAY, WHEN CHECKS FROM THE VARIOUS BANKS ARE EXCHANGED AND THE BALANCES DUE ARE DETERMINED.



6. THE CHECK THEN GOES BACK TO THE BANK UPON WHICH IT IS DRAWN; ANY BALANCE DUE OTHER BANKS IS SETTLED, AND THE CHECK, MARKED PAID, IS RETURNED TO THE DRAWER WITH MONTHLY STATEMENT OF ACCOUNT.

Ex-dividend. Not including the dividend declared.

Fixed charges. Regular expense of conducting a business.

Foreign exchange. Drafts drawn in one country but payable in another.

Founder's shares. Shares issued to promoters.

Gold bond. A bond payable only in gold.

Hypothecation. Pledging property as collateral.

Industrial stock. Stock of a manufacturing or public utilities corporation.

Joint bond (or mortgage). One issued jointly by two or more parties.

Judgment note. A promissory note authorizing entry of judgment without process.

Kiting. Discharging an obligation by incurring a new one.

Listed stocks. Stocks admitted to sale by an exchange.

Mortgage. A lien to secure a debt.

Net. Not subject to any deduction.

Non-assessable. Stock not subject to assessment.

No protest. Not to be protested if not paid.

Operating company. One handling but not owning a road, etc.

Option. A right to purchase at a given price within a given time.

Overlying or second mortgage. A mortgage subject to another mortgage.

Paid-up stock. Stock paid for in full.

Par. Face value.

Passive bond. A non-interest bearing bond.

Pool. A combination to regulate prices.

Preferred stock. Stock entitled to a dividend before the common stock.

Proxy. A person or instrument representing another.

Put. A privilege to sell at a given price within a stipulated time.

Quotation. Price on a stock or bond.

Right. Privilege to subscribe to a security issue.

Serial bonds. Bonds redeemable as specified.

Subsidiary company. A company whose stock is controlled by another company.

Time loan. Money loaned for a given period.

Voting trust. A combination formed to vote stock as it may think best.

Working capital. Money for operating expenses.

The Corporation, the Trust, the Sherman Law.

1. Combinations of capital necessary in large undertakings.
2. A corporation illegal only when it restrains or obstructs legitimate business.
3. The illegal combination may be of capital, of labor, or of both.
4. The power of Congress to regulate corporations derived from the provision of the national constitution on interstate commerce. (Art. I, Sec. 8.)
5. The law can control because the right of the people is superior to the right of either capital or labor.
6. The law must be constructive, not destructive; must regulate, not impede; must protect the people without injuring capital or labor.
7. A trust is illegal when it aims to destroy competition and to so control any product as to injure the proper rights of the public at large.
8. The Sherman Law devised as a remedy for an evil. It can be wisely enforced only by a study of rights and of conditions.
9. Business looks to profit for capital and to compensation for labor; but to neither at the expense of the public in the form of a grinding monopoly.
10. Requiring courts to pass upon business a necessity, not a virtue; a source of danger from negation, and from not recognizing the need of a creative power and a benefit in business.

11. The Sherman Law defective from lack of a constructive element—power to protect the corporation in the legitimate development of business.
12. The Sherman Law is on the same principle as the Interstate Commerce Commission—that the people have the right to regulate anything which they create. (See the Declaration of Independence.)
13. The right of the people extends only so far as proper conduct and just purpose. Form, internal management, legitimate business secrets, enterprise and initiative, etc., cannot be wisely interfered with. Proper regulation promotes business, it does not paralyze it. (See President Taft's message, December 6, 1910.)
14. Concentration of capital and influence so as to control money and financial transactions, thus indirectly throttling competition, is the menace to public interests, at which the Sherman Law is aimed. Its ultimate interpretation and application are determined by the courts.

Relation of the Employer to Business.

1. The employer must obey the law. A law-breaker sets a bad example to employes.
2. He should deal justly with competitors to maintain public confidence and respect.
3. He should be fair to employes; pay wages promptly, and pay them in cash.
4. By cutting down wages and inflating capital he may incite labor to resentment, to strikes, or even to a disposition to destroy; and he may antagonize the consumer.
5. He should know business generally and his own business thoroughly. Without studying his own business, the employer can neither regulate nor advise his employes wisely.
6. He should be a student of business art, business relations, and business conditions. Without this, he invites disaster.
7. He should be quick to recognize merit in an employe; prompt to reward loyalty (as it often causes a sacrifice by an employe); and as liberal as the business in hand will permit.
8. He is entitled to faithful service; to a fair return upon his capital and effort; and to handle his business without dictation or interference.
9. He should visit other concerns conducted upon a similar basis and other concerns in the same line. It broadens him and often gives a valuable suggestion.
10. He should know the regulations of his own establishment; should be acquainted with the character of the head of each department and his disposition to superiors and to subordinates; and he should see that, as far as practicable, his factory or shop is in harmony with the local board of health.
11. He should recognize that every good citizen is free; that the principle upon which this government is founded gives an employe the right to reject or accept a price offered for his labor; that this right is neither dependent upon nor opposed to his membership in any organization; and that coöperation with both his employes and with other employers is a valuable means of success.
12. He should not be cowardly—his employes will not respect him; should not be overly selfish—his fellow employers will not trust him; and should not be too greedy—the public will not buy his goods.

Relations of the Employe to Business.

1. He should recognize that the employer is entitled to a fair return on his capital; to sufficient additional profit to protect the risks and the wear and tear of the business; and to a fair wage for his own effort and ability.

2. He should remember that there is a better way to secure fair wages than by destroying the property out of which he gets a living, or by rendering the business unproductive.
3. Being one of the elements of business production, the employe is entitled to a fair share of the profits and should not rest content until all legitimate means to secure this have been exhausted.
4. An advance in wages is proper if due to:
 - a. Merit or efficiency of the employe.
 - b. A long and satisfactory service.
 - c. A large growth in the business—especially if due to his effort.
 - d. An increase in the value of the product.
5. Allowance for injury depends on:
 - a. Whether due to the employe's neglect or carelessness.
 - b. Whether due to the employer's neglect or carelessness.
 - c. Whether due to the dangerous nature of the employment.
 - d. Whether due to an act of God and thus beyond the control of employer or employe.
6. Allowance for sickness.
 - a. If due to the employment, there is ground for recovery from the employer.
 - b. If due to other causes, employe has no legal claim upon the employer.(In respect to 5 and 6 a change would be effected by the proposed enactment of employers' liability laws.)
7. Unnecessary hardships.
 - a. The employe's manhood must not be degraded.
 - b. He must not be robbed of his individual freedom.
 - c. He must not deprive others of their freedom by threats or by injury.
 - d. The hours of employment must be reasonable.
 - e. He should not be kept "upon the anxious bench" as to compensation or as to loss of position.
 - f. He should not be called to account because of politics, of religion, of color, or of connection or non-connection with any organization, unless it interferes with the discharge of his duties as an employe.
 - g. He should not be compelled to labor under conditions that are not sanitary if the nature of the business renders it possible to have it done with healthful surroundings.
8. Loyalty to the employer.
 - a. It is a principle of life that he who eats another's bread should not betray the hand that feeds him.
 - b. The employer is entitled to faithful service.
 - c. Quitting before a date agreed upon forfeits legal claim to compensation for part time.
 - d. "Eye service" is not honest service in the eyes of the law.
 - e. Employes are in one sense agents for the employer's business. Loyalty to themselves requires them to endeavor to promote the success of the business by their conduct.
 - f. The employe has no right to injure the business by misconduct, by bad morals, by insinuation or open condemnation, or by revealing knowledge that comes to him by virtue of his employment.
 - g. The employer has a right to insist upon promptness, persistency, and steady application.
 - h. The employe has not the legal right to allow a grievance, real or imaginary, to make him a discontented grumbler, disturbing the peaceful work of those about him.

9. Causes justifying discharge.
 - a. Lying, fraud, or deliberate deception.
 - b. Failure to do a work agreed upon unless justified by a proper excuse.
 - c. Abandoning the employment before a time agreed upon.
 - d. Gross immorality, licentiousness, drunkenness, or viciousness.
 - e. Inefficiency or unfitness.
 - f. Insubordination.
 - g. Mischievous activity against the interests of the firm.
 - h. Conspiring to do the employer or his business a harm.
 - i. Grossly interfering with another employe, his work, or his usefulness to the business.
 - j. Betrayal of the firm's business secrets or of its interests.
 - k. Deliberate and persistent violation of the company's rules for conducting its business.

Relation of the Public to Business.

1. All public utilities and corporations get their right to do business from the people.
2. They are created primarily to serve the interests of the people.
3. For these reasons they are answerable to the people for the conduct of their business.
4. As their product is consumed by the public, onerous conditions or unreasonable prices arouse criticism and antagonism.
5. Good homes, pleasant furnishings, ability to patronize art, entertainments, public development, etc., are dependent upon wages and price.
6. Strikes, lockouts, rioting, discontinuance of production, destruction of property—all are injurious to public interests and give the people the right and officials the duty to interfere.
7. Neither the ends of justice nor the interests of the public justify espionage, unreasonable interference with the conduct of a business, unfair demands upon an employer or a corporation, the inference that an industrial combination is necessarily injurious, or the arbitrary enactment of unwise laws. Employer and employe are entitled to fair play as well as the consumer.
8. The consumer must furnish proper reward to capital; he must protect labor from imposition; he must promote harmonious coöperation between capital and labor; and he must be equitable in his demands.

Facts About Arbitration.

1. A principle cannot be arbitrated—it can only be surrendered.
2. A question of practice or a difference of views may be arbitrated if both parties agree.
3. The arbiter cannot be governed by general rules, by precedent, by technicalities, or by influence—only by common sense, equity, and courage.
4. The desire for arbitration must be sincere if permanent industrial peace is to follow.
5. Arbitration is not to be desired. The decision usually leaves both parties discontented. Harmonious agreement upon a proper understanding of business conditions is preferable.
6. In arbitration between capital and labor the third party—the consumer—is never represented. Yet he is as deeply interested as the other two when disagreement results in business disorganization.
7. If arbitration is agreed to, all parties must honestly accept and loyally abide by the decision. Crafty evasion, artful substitution, or an open refusal to accept are not honorable and are usually disastrous in result.

8. Arbitration should be between business organizations with just dispositions. The organization of employers should have the disposition to grant employes fair wages and equitable conditions; the organization of employes should be equally disposed to leave the management where the experience, the money, and the risk are, and to grant to these a fair return and a proper consideration.

AGREEMENT TO REFER

(Place and date.)

Know all men, That we (full name or names) of (place or organization) and (full name of party, corporation, or firm) of (place and state), having each of us due authority in the premises, do hereby promise and agree, to and with each other, to submit and do hereby submit (specifically describe the matter referred for arbitration) to the arbitration and determination of (name the arbitrators in full), whose decision and award, unanimous or by majority vote, shall be final, binding, and conclusive on us.

Witness our signatures at (place and state) on the (date) of (month and year).

(Signatures)
.....
.....

ARBITRATORS' AWARD

To any one to whom this may be presented, We (names of arbitrators in full), to whom were submitted as arbitrators the matters in controversy between (name and describe the parties carefully), do hereby state:

- First, that we were duly sworn as provided by law.
Second, that we have heard the proofs and allegations of the parties to the controversy.
Third, that we have examined the matters submitted to us with great care.

Fourth, that we make the following award:
(Here state the award concisely and accurately in writing.)

In witness whereof we hereby subscribe our names this (date) day of (month and year) at (place and state).

Witnesses:
..... (Signatures)
.....

THE FARMER AND THE MARKET

Any presentation of the problems facing the farmer of the United States is imperfect. The business itself is not yet being conducted on a scientific basis. Knowledge of the land and of seed is crude. The problem of transportation has not yet been studied in a methodical way by farmers. The question of the best market and a fair price is still open. The most desirable forms of coöperation are still open to discussion. But, notwithstanding all these drawbacks, the farmers of the country are making wonderful progress in studying the factors of the market problem and in working out a satisfactory answer.

It needs but a glance to see the importance of farming as one of the great lines of the business world. Recent reports show that there are 6,340,120 farms in the United States alone, and that they have a value (with their products) of over \$31,000,000,000. Farm animals are valued at \$5,138,486,000, and in 1909 Chicago packers report that they used 1,637,295 cattle and 6,298,205 hogs. Census reports show that the farmers of this country produce one-tenth of the world's product of sheep, one-

fifth of the world's cattle, one-quarter of its horses, one-third of its hogs, two-thirds of its mules, and over one billion pounds of beet sugar. The problems to which the farming business is directing its attention are presented herewith.

1. The Selection of a Farm.

- a. Where located.
- b. Character of the soil ; how it lies ; kind of plowing required.
- c. Climatic conditions in relation to the farmer and health.
- d. Climatic conditions relating to the fertility of the soil :
 - (1) Rainfall—amount and period.
 - (2) How it can best be fertilized.
 - (3) Irrigation (arrangements for, cost, permanency, etc.).
- e. Convenience to market and transportation facilities.
- f. Title ; why being sold ; actual value.
- g. Improvements made or necessary.
- h. The machinery expense involved.

2. The Development of the Farm.

- a. Is it suited best for cultivation or for stock?
- b. If for cultivation, what crop and why?
 - (1) Chemical analysis of the soil.
 - (2) Danger from soil diseases, plant diseases, etc.
 - (3) Danger from destructive insects.
 - (4) Crops : wheat, corn, oats, barley, rye, hay, buckwheat, hemp, cotton, tobacco, sugar, beets, potatoes, celery, market garden products, etc.
 - (5) What qualities should the best seed have?
 - (6) Amount needed for home consumption?
- c. If best suited to stock raising :
 - (1) What kind of stock—horses, cattle, hogs, sheep, mules, goats, or poultry?
 - (2) Breed, purpose, market.
 - (3) How fed and cared for?
 - (4) Effect on other animals.
 - (5) Relation of breed and food to milk, butter and cheese production, wool crop, etc.
 - (6) Relation of breed and food to flesh building ; to raising qualities ; to egg production, etc.
- d. If devoted to fruit raising :
 - (1) What fruit is it best suited to—apples, pears, peaches, plums, apricots, grapes, pecans, olives, etc.?
 - (2) Danger from tree or fruit diseases.
 - (3) How protect from insects?
 - (4) How plant the trees so as to get most from the ground without injuring the trees?
 - (5) When can a plant be allowed to produce?
 - (6) Preparation of the crop for market.
- e. What attention should be given to forestry?
- f. Give consideration to the best method of fertilizing, to irrigation, and to drainage.

3. Disposition of the Product.

- a. Thoughtful study of distribution pays.
- b. Is the nearest market always the best market?
- c. Is it best to endeavor to market the crop direct or through a commission merchant?

- d. It is the best policy to stick to an honest and square commission merchant, even though someone else offers a larger price for a special crop.
- e. How best secure fair transportation charges from railroads, ships, and express companies?
- f. When is expressing better than shipping in iced cars?
- g. What attention should be given to having the product in the best shape before shipping and what to its care *en route* to market?
- h. The total capital invested in butter, cheese, and condensed milk production in the United States in 1905 was \$47,255,556, and the number of wage earners employed was 15,557. What does this suggest as to the product of milk cows and goats?
- i. Importance of healthfulness and cleanliness in milk shipped direct to market.
- j. What value has the reputation of a shipper in the matter of prompt sale, price, orders, full remittance, etc.?
- k. Should a farm be forced—even to the extent of temporary exhaustion—to secure a big market?
- l. Immediate sale or hold (price, drying out, withering)?

4. Associations and Combinations.

- a. The farmers' association can discuss:
 - (1) Soil composition; soil fertilization, etc.
 - (2) Crop rotation and its advantages.
 - (3) Disease (cattle, tree, fruit, plant).
 - (4) Local market and transportation problems.
 - (5) Social and sanitary questions.
 - (6) World market, tariff, etc.
 - (7) Advantage or disadvantage of commercial clubs, city commercial associations, railway associations, farmers' associations.
 (The general standpoint of market and price for product should be kept in view.)
- b. Combinations may be formed:
 - (1) To limit production.
 - (2) To enlarge production.
 - (3) To control the market as to shipments, as to price, as to transportation, etc. (in connection with combinations of buyers, commission merchants, cold storage companies, and speculators on an exchange).
 - (4) To secure fair shipment rates.
 - (5) To secure harmonious coöperation in handling commerce (with commercial associations, combinations of capital, the banking interests, etc.).
 - (6) To learn the facts of distribution, the production of other sections of their own country and of other countries, their relations to the world market and to industrial development and industrial peace, and to know something of system in plan and in marketing produce.

PUBLIC AND PRIVATE CARRIERS

OBLIGATIONS — LIABILITIES

A party who undertakes to carry goods or passengers is either a public carrier or a private carrier. A public carrier makes a business of transporting goods or passengers from one point to another. The private carrier engages in transferring from

one point to another as a special undertaking, not as a regular business. Common sense, the law, established usage, and custom all have a bearing, but there are certain general facts and principles which may be stated briefly.

In mentioning the different "Kinds of Business" we include RAILROADING and NAVIGATION. Both railroads and ships are carriers because engaged in transportation; but the same general principles, obligations, liabilities, rights, etc., apply, and so we do not separate them, though each is a distinct business in itself.

1. The Private Carrier.

- a. Engages in a special undertaking.
- b. Usually makes a specific contract.
- c. Should see that the contract is clear and definite as to his duty and as to the other party's duty.
- d. Must exercise care and diligence in discharging his obligations as a carrier.
- e. Is liable for loss or injury if not traceable to a fault of the owner.
- f. If transportation by a private carrier is without compensation—merely as a friendly act—he is liable only for gross negligence.
- g. If the private carrier undertakes transportation without a specific agreement, he is nevertheless bound by the general law of contract and by the general rule of liability for service undertaken to be rendered.

2. The Public or Common Carrier.

- a. Obligations if carrying passengers.
 - (1) The common carrier must carry those who offer and pay the price, if proper persons in proper condition.
 - (2) If it can be done without unnecessary violence or injury, may remove or cause to be removed any disorderly passenger creating a disturbance.
 - (3) May refuse or remove bad characters, those passengers having an infectious disease, etc.
 - (4) Need not take on passengers if already loaded to capacity.
 - (5) Must exercise unusual and diligent care to protect the life and person of the passenger.
 - (6) Must transport passengers with reasonable promptness and stop at the usual places or at a place agreed. (The body of a deceased person may be carried for one fare in the baggage car.)
 - (7) Is not required to control passengers beyond a reasonable restraint.
 - (8) Cannot force a passenger to assent to unreasonable rules or prices (considering the carrier's business and obligations).
 - (9) Must provide suitable and comfortable means of transportation and carry over the whole route.
 - (10) Must secure proper persons as employes or servants with a view to the comfort and safety of passengers.
 - (11) Can protect passengers from injury or annoyance while on his property or under his charge (from thieves, pickpockets, solicitors, drunken or insane persons, etc.).
 - (12) Must notify passengers of any unusual danger. Must not subject them to special peril.
- b. Obligations if carrying freight.
 - (1) The common carrier must take goods offered by all parties or show good cause for not doing so.
 - (2) Must transport goods promptly.
 - (3) Must protect the shipper from loss or injury.
 - (4) Can refuse goods not in proper condition for shipment.

- (5) Must protect goods which he stores on his own premises for his own convenience before carrying to their destination.
- (6) Is not under obligation to carry goods without pay or satisfactory security.
- (7) Is under obligation to have employes who are civil, competent, careful, and energetic.
- (8) Is under obligation to make good delivery of freight consigned to his care.

(This is commonly understood to include promptness, delivery in the right way, delivery to the proper person, delivery during business hours [unless otherwise agreed], and delivery in as good condition as received.)

- (9) May on satisfactory evidence, with proper indemnity and under full security, deliver to some other claimant than the consignee.
- (10) Is not under obligation to deliver goods on which the freight charges are unpaid if he refuses to make delivery on this ground; but he is under obligation to protect the goods from injury or theft.
- (11) Is liable as soon as goods are accepted.

c. Obligations if carrying baggage.

- (1) The common carrier must handle baggage with care.
- (2) Must deliver all baggage at the point to which it was to be carried.
- (3) Must deliver baggage to the right party.
- (4) Must keep baggage uncalled for for a reasonable length of time.
- (5) Must deliver baggage promptly.
- (6) May reasonably limit baggage in kind, quantity, condition, value, etc.,—but this is largely determined by courts and juries.
- (7) Must carry a limited and reasonable amount of baggage with a passenger.
- (8) Must consider the needs and conditions of business in handling baggage.
- (9) Must secure trustworthy and careful employes for the handling of passengers and their baggage.

d. Liabilities of the common carrier.

- (1) The common carrier is liable for loss or injury to passengers if he has not exercised unusual care to provide for their safety.
- (2) May be liable if an accident is not due to his fault or neglect—as in a railroad wreck due to children's placing obstructions on the track, or a boat's sinking from striking an obstruction.
- (3) Is liable for delay, or for preventing a passenger from taking a trip, because his conveyance is full, if he has not sold the transportation upon condition of there being room.
- (4) Is liable if the passenger is not transported over the whole route for which the ticket was sold, in a reasonable time, at a reasonable price; or if he does not stop so the passenger may alight at the usual place. ("Express" trains, "specials," chartered trains or ships, etc., may have irregular routes.)
- (5) Is liable if the passenger, through his lack of care, contracts disease, is exposed to filth or vermin, is injured or meets with loss through the carrier's incompetent or dishonest employes, or is put in peril by reckless servants of the carrier.
- (6) If the passenger deliberately and knowingly assumes a risk, or if his damage is due to an act of God, or to the carrier's obedience to a law, or to the passenger's own condition or misconduct beyond the carrier's control, then the carrier's liability ceases.

- (7) In the transportation of goods for pay the carrier is liable if the goods are not in as good a condition as when he received them; if he delivers to the wrong party; if he does not deliver in a reasonable time; if he does not deliver at a reasonable hour; if the goods are destroyed by fire or by wreck; if the goods are not delivered at the point designated—even if beyond his line—if he shares in the profits of transporting for the entire route; and if his employes are reckless or dishonest.
- (8) The common carrier is liable both for immediate and for prospective loss or damage; if he refuses to transport goods without legal grounds or because of personal enmity; if damage or loss is due to his transacting some other business at the same time; if he refuses to carry because the owner of the goods will not pay an unreasonable price; or if he knowingly delivers to a party that he believes intends to practice fraud or swindling.
- (9) The common carrier is not liable if he refuses because the goods are dangerous; or out of his usual line; or require extraordinary means of transportation; or do not have the charges paid or guaranteed; or will overload his vehicle; or may be seized by a public enemy; or are in peril because of some act of God; or are tainted with fraud.

NEGOTIABLE NOTES

1. Conditions of a Negotiable Note.

- a. The payee should be distinctly named.
- b. The promise to pay should be unequivocal.
- c. The promise to pay should be absolute.
- d. There should be a legal consideration for which the note was given.
- e. "Value received" is not necessary on the note.
- f. A note given without consideration but to help the credit of another is negotiable.
- g. An illegal consideration operates as no consideration.
- h. A note's negotiability may be strengthened by indorsement.
- i. Not being due is an element of strength in a note; being overdue is a warning.
- j. Endorsement "without recourse" releases the endorser from liability.

2. Payment of a Note.

- a. A note should be presented for payment when due.
- b. The holder of a note should demand payment when it is due. He may lose if he sleeps too long on his rights.
- c. Endorsers should be immediately notified if the maker of the note does not pay.
- d. The maker or a previous endorser is first responsible.
- e. "Days of grace," if in the statute, are binding.
- f. A note payable at a particular place should be presented at that place.
- g. Not demanding payment legally may release all endorsers.
- h. A note should be protested if not paid when due, and all interested parties should be notified at once.
- i. A payee may make a note payable to his own order and then endorse it.
- j. An endorsement of a note guarantees previous endorsements to be genuine.

MUSIC

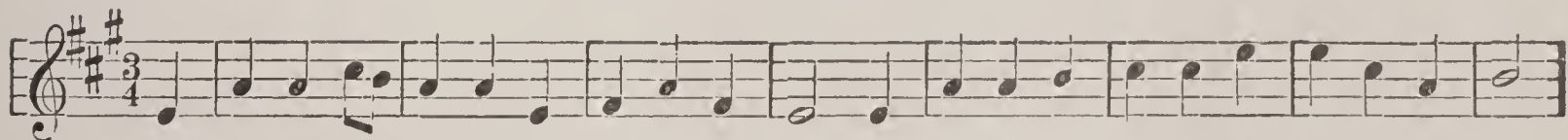
According to mythology the early Greeks accredited the source of music to the infant god Pan, who, it was claimed, when only a few days old, first brought forth musical tones from a reed he plucked from the fields. If this myth shows nothing more, it is evidence that these early people held this art of sufficient importance to endeavor to attribute its origin to the gods. The real beginning of music, history shows us, goes back as far as the history of mankind, manifesting itself, though in a crude manner, in the attempt to express those feelings of joy or sadness usually attendant upon religious festivities. From the very first, men seem to have recognized in music the true language of the emotions and to have turned to it as the only vehicle for expressing that for which words alone seem inadequate.

The slight advance made in music up to the Christian era had little direct effect upon the art as we know it today. Greece with its unrest, Rome with its militarism, could do little to foster an art which looks to peaceful meditation as its inspiration. With the beginning of the Christian era, however, music found its patron and preserver. The Church was quick to recognize the benign influence of music in rendering its followers more susceptible to its teachings, and the monks in their seclusion found both time and quiet to develop music and to adapt it to the needs of their religious services. The Gregorian Chants, which are in common use in the Roman Church today, are a fair illustration of the climax of attainment reached in music from the beginnings of the Christian era through the dark ages. In fact, music as a fine art, as we know it today, dates back for its beginning scarcely more than four hundred years. A history of music, starting with the classic composers, would be practically a biography of the lives and works of these great masters.

A brief outline of musical forms and structure as used by these masters (which are also the accepted forms in present-day music) is as follows:

VOCAL FORMS—SECULAR MUSIC

I. The *Song* is the simplest vocal form, being a melody with accompanying verse. The shortest musical sentence or song would correspond to a two-line verse.



Flow gently, sweet Afton, a-mong thy green braes, Flow gently, I'll sing thee a song in thy praise,

A *Folk Song* is a narrative song that has grown up among a people—often based upon legendary events. Most of the best known Scotch songs are folk songs, no one knowing when they originated. "Flow Gently Sweet Afton" is an example.



The min-strel boy to the war is gone, In the ranks of death you'll find him;

A *Ballad* is a simple song which tells a story or is a description. All verses are sung to the same tune, and it is thus in contrast with an *Art Song* which has characteristic music for the various verses. An illustration of the Ballad is "My Old Kentucky Home," or "The Minstrel Boy."

II. *Concert Music* is music in which two or more parts are sung at the same time. The *Duet* is a two-part composition where the two parts are of equal importance, contrasted with a two-part song where one part merely accompanies the other. A three-part composition is a *Trio*; a four-part, a *Quartet*, etc.

III. An *Opera* is a versified drama or play set to music for both voices and orchestra. The primary purpose is to display feelings and passions. The play or drama is called the *Libretto* and the music of the opera is the *Score*. The elaborate songs for solo voices are referred to as *Arias*; and a declamatory passage in which a singer imitates as nearly as possible the natural speech is a *Recitative*. The opera introduces the *Aria*, the *Recitative*, the *Duet*, *Trios* and *Choruses*, with instrumental accompaniment.

A *Grand Opera* is of a serious nature and contains no spoken dialogue.

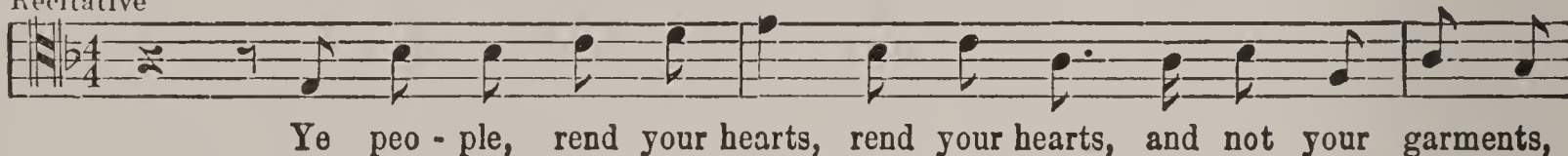
A *Comic Opera*, which differs from the *Grand Opera* in that it contains some spoken dialogues, is a light musical farce, the libretto often being scarcely more than a framework upon which to build the more elaborate musical settings.

An *Operetta* is a small opera, unpretentious and gay.

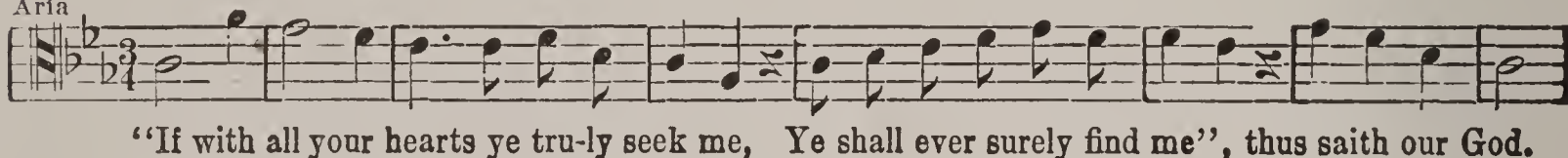
SACRED MUSIC

Most of the shorter forms mentioned under "Secular Music" may be adapted to words of a religious character, but there are certain forms that are primarily sacred.

Recitative



Aria



An *Oratorio* is a composition similar in its distinctive parts to the opera, but with a text founded upon scriptural narrative. Although distinct characters are represented, an oratorio is performed without action or scenery. Among those most frequently rendered in this country are Handel's "Messiah" and Haydn's "Creation."

A *Cantata* is a short musical composition with a given theme or text. It comprises choruses and solos and has an instrumental accompaniment. It may be either sacred or secular. A good example of the sacred cantata is Sir John Stainer's "Crucifixion"; and of the secular, "Building of the Ship" from Longfellow's poem, music by Lahee.

THE TEACHING OF VOCAL MUSIC

It is only within recent years that the public has come to feel that a musical education can be finished in this country. Musical authorities at home and abroad agree that the United States is just entering upon an era of distinctive American music when opera will be given in English by American born and American trained singers.

Symphony orchestras from musical centers are touring the whole country and the general musical appreciation is being uplifted. Probably the greatest retarding agency in the advancement of music is the prevailing idea that only the elect can learn to perform or appreciate music. Real appreciation of music or any other art presupposes a working knowledge of the underlying principles of that art, as well as familiarity with the highest types of its production.

Only a small minority of children can ever be taught music by private teachers for two reasons: financial restriction, and indifference on the part of many parents, who will not take the initiative in starting the musical education of their children. It therefore rests largely with the public school teachers to create a love for music in the

children among whom they work, as well as to give them a working knowledge of music. This responsibility of the public school teacher in giving children a fair start—and the right kind of a start—in music will be more fully appreciated if it be realized that scarcely more than one per cent of our population attends school beyond the age of fourteen, and likewise if it be realized that musical proficiency is rarely attained unless a love for and an understanding of music is acquired before this age.

PUBLIC SCHOOL MUSIC

1. What should we expect children to accomplish in music in the public schools?
2. What should we expect of the teacher?

A brief answer to the first question is: Children should sing and hear so much of the best music that they will not care for the bad. Good music does not necessarily mean difficult music. By the time the eighth grade is reached pupils should read most music fluently. Children should know how to use their voices to the extent of producing a clear, light tone.

An answer to the second inquiry is: First of all the instructor must be a teacher. If she can teach a class in reading and will not try to make an exception of the music lesson, she will probably be successful. The necessary qualifications of any teacher for handling music in her own school, in addition to her ability to teach any other subject, are a good ear, a clear, light voice, and the ability to sing a simple song through sweetly and accurately.

The following outline for music in the common school is offered with no reference to text-books. It would be well to note, however, that little but the better class of music is offered in the music books issued by reputable educational publishers.

GENERAL SUGGESTIONS

If waste is the great American sin, waste of time in the music lesson is the great teaching sin. Children learn to sing by singing, not by having the teacher talk about it. Children learn to read music by reading it, and not by means of musical grammar.

The *child voice*, contrary to prevailing public opinion, is high, not low. Until twelve years of age the boy's and girl's voices differ chiefly in quality, not range, the boy having greater clearness and power. Anything from the boy but this clear voice, like the tone of a woman, is not singing but yelling. Any attempt of a boy to sing bass until he has reached maturity is folly.

PRIMARY GRADES

The ordinary first year class, upon entering school, comes with practically no experience in singing. Most of these children have a fair command of English in which to express themselves, and thus are equipped to begin their work in reading; but in music the means of expression must be furnished them in the school room, and it usually takes the great part of the first year to teach them a sufficient number of good songs which shall be a basis for their subsequent work. Thus the first year's work is chiefly the

Rote Song. As to the best manner of teaching a rote or imitation song, the teacher will do well to bear in mind that the chief thing is to "arrive" and not "how did you come?" Sing the song through once or twice completely for the class; then begin singing each phrase or line, letting the class repeat until the song is learned. Children in primary grades should seldom sing lower than Eb, the bottom line of the staff, nor higher than F, the top line.

Children need to sing much faster and lighter than adults, and the teacher should sing the song the first time just as she wants the class to sing it. A class knows a song when every individual can sing it. If monotones trouble, those using them should be seated in the front where they will be surrounded by the better singers and be

near the teacher. Short songs are better than long ones and nothing but children's songs should be used.

Ear Training—Vocal Exercises. If children are kept singing songs in a light, pleasing tone, they are getting all the ear-training and voice-training they need, or that the ordinary teacher knows how to give. Special ear-training and vocal exercises and action songs (except the latter in a mild form) are good examples of a waste of time.

From Rote to Note. If rote songs are exclusively used longer than the first year the children will lose interest and feel that they are "getting nowhere." Any real teacher will know that if children do not gain independence and the ability to think for themselves in any subject, something is wrong. Music is no exception to this rule. As the A, B, C, method of teaching reading has long since given way to the sentence method, so has the scale method of teaching music given way to the complete song method.

Many of the difficulties of teaching children to read music will be removed if teachers will see that they teach nothing that children do not need to know in order to read simple music. For example, key signatures materially affect the piano pupil and he needs to understand the flats and sharps. They do not affect the singer, and all that children need to know at first is where the key tone is found. Therefore, the key of E^b or E, either, placing *Do* on the bottom line, is easier for children than the old key of C. Given a class of children who know from fifty to one hundred rote songs and are ready to have notes placed before them for the first time, the following will suggest a simple manner of procedure:

At least a dozen of the rote songs should be short, simple songs, taken from the book from which pupils are first taught to read. Select one of these to use as a "pattern" song and place it on the board.

Now point to the words while the class sings the song which they know from memory. The teacher, telling the class that she will sing it with some new words, points to the notes and sings, *mi, re, do, re, mi, fa, sol, sol, la, sol, la, sol, ti, do.* The class repeats these syllables until learned, the teacher pointing each time. As soon as the pupils can sing the notes correctly they are asked to turn to the same song in their books and sing it, *pointing to the notes while they sing*, as the teacher did on the board. The teacher can then call attention to the number of counts, the different kinds of notes, etc. For two or three successive lessons songs in this same key may be given in the same manner as this, using these pattern songs. Then the children will be asked to sing a simple song that they have never sung before, in this same key, and for several lessons following they will sing in this key.

For the first few lessons the teacher might help them over a difficult place in the same judicious manner that she would help a beginning class in reading; but continued help in this way will be destructive of all progress. After about a dozen songs have been sung in this key, take up another key in the same manner, using the pattern song. It ought not to be necessary, however, to use the pattern song for more than three keys after this; simply tell the class where the key tone is found and have them start singing.

Individual work should be carried on systematically from the first, as it is the only way in which the progress of all the pupils can be assured. Chart or board work is most essential in these primary grades and, although children must learn to read from books, one of the songs placed on the board at least once a week will help. Rote songs should be continued through the primary grades, their place being gradually usurped by the sight-reading.

INTERMEDIATE GRADES

Here the most rapid strides are made in music in both the technical and the artistic phases. The children have not reached the over-self-conscious stage and are free to express their feelings through song. The ability to read music that is com-

mensurate with their taste should make the music period a joy to both teacher and pupils.

The Rote Song stage is passed, but now and then the class should sing songs that are a little beyond their ability to read alone, being assisted by the teacher and piano.

The balance between the technical and the artistic is an important factor. The artistic is a hard side to teach, but it will grow in each individual as his power to translate the technical with ease increases—leaving him thus free to give considerable of his attention to expression.

Sight Reading is the nucleus of the work in this period, and all other phases may be grouped around it. "Read new music and plenty of it," is the slogan for these grades. Teach only what theory is necessary for them to read the music understandingly.

ADVANCED GRADES

Safeguarding and classifying the voices of the pupils is of great importance in these grades. Girl voices are light and the boy voices clear and strong, so it is unfair to either to make the division for parts between boys and girls. Rather divide according to the range of individual voices, with boys and girls on each part.

Part-singing will receive the greater amount of attention, but unison work should not be abandoned both on account of its inspiring nature and of the demands it makes on the whole range of the voice.

The Bass Voice will begin to show itself in the seventh and eighth grades, although with a limited range, often going its very lowest immediately after mutation.

In an eighth grade there will usually be found the following types of voices: High soprano, second soprano, and alto, among both boys and girls; then, in the older boys, a so-called alto-tenor and an incipient bass.

The boys should be kept singing through this period of the change of voice; and as it is, and naturally so, the most self-conscious stage, the wise teacher will keep them within an easy range and encourage and help them in their attempts.

KINDS OF MUSIC

A safe general rule in selecting music for school use is "Use only music that ranks with the kind of literature you would give the children."

Music for any grade should be of a character that will appeal to children of that particular age. There is so much good music published in both book and octavo form for school use, that there should be little trouble in securing the right kind if one avoids the latest song "hits" for children and the common popular music.

In schools where a piano cannot be obtained a good phonograph will prove invaluable. Not exactly in the sense of taking the place of the piano, but children need to hear music performed in a better manner than they themselves can do it. They need to listen to music, to note the harmony, and to hear enough good music to form a taste for it and a prejudice against the bad. A good phonograph will do a great deal in this way and a concert now and then will supply new records.

A public performance occasionally by the children, a concert, or an operetta, will lend interest to the general school music.

Biographical study of musical composers is valuable if done in the language or reading lesson, but there is no time in the short music lesson for such work.

In conclusion:—only by keeping constantly in mind the fact that the public schools are teaching live, thinking boys and girls to know and to appreciate music, and not simply rendering music with children as an instrument, can teachers do their part toward bringing about a musical community, and by a multiplicity of such communities a musical America.

ART

PAINTING

Painting, the art of representing objects in colors on a surface, began at least as early as the Egyptians, for their work can still be seen on the walls of their templed ruins along the Nile and on many a mummy-case. These are crude, to be sure, and mainly characterized, as to portraits, by being drawn in profile. The Egyptians used but few colors and were not given to mixing them.

In Greece painting seems to have reached a high degree of perfection, but few examples are left today to bear this out. If the writers of that period, however, are to be believed, Grecian painters rank with the greatest of the Renaissance. The testimony of such men as Pliny, for example, rather than any extant works, have given renown to the names of Appelles, Parrhasius, and Zeuxis.

Roman painting was but a debased Greek. From history we learn that Rome at the height of her glory was full of artists; but they were, no doubt, of mediocre ability. No great names or examples have come down to us. The excavations in Pompeii probably show some of their best work. The painting of today had its beginning with the early Christians and some of their first efforts may still be viewed in the catacombs. These were followed by the mosaics found in so many of the churches of the fifth to the tenth centuries and which serve as a connecting link with modern painting beginning with the year 1200.

STUDIES IN ITALIAN PAINTING

i. EARLY CHRISTIAN, 1200-1400.

- a. Origin dates back several centuries in crude attempts of Christians to represent symbols of their religion. These symbols, prescribed by church councils, stiff and unexpressive.
- b. Florence—the city that gave birth to and matured the natural in painting. A republic; the people as a whole keenly alive to the possibilities of art and encouraging it. What evidence of this do you find in the life of Cimabue? (Note the triumphal procession that accompanied his Madonna to the church of Santa Maria Novella.)
- c. First attempt at naturalism by Cimabue of Florence. Note the beauty of his character. Compare the somewhat lifelike expression and action in his pictures with the stiff and wooden figures of earlier paintings.
- d. Giotto—What was his relation to Cimabue? In what cities did he paint? Compare his breadth of interest, as shown in his work, to that of Cimabue. Ruskin says: "Cimabue painted the Virgin, the Holy Babe, and Saints; Giotto painted Papa, Mamma, and the Baby." Comment on this. Do you see any attempt at dramatic expression in his paintings? How did he paint feet and hands? What Saint was he especially fond of representing on canvas?
- e. General characteristics of this period. Subjects are religious and theological; a few altar-pieces, but mainly a series of frescoes on related subjects; painting done almost exclusively for churches and monasteries.

- f. Correlated Poetry,—Mrs. Browning's *Casa Guidi Windows*; Browning's *Old Pictures in Florence*, Longfellow's *Giotto's Tower*, passage in Dante's *Purgatory* (XI, 944).

2. EARLY RENAISSANCE, 1400-1500.

- a. Development of painting furthered by the study of Grecian statuary, a knowledge of anatomy, and the encouragement of rich patrons.
- b. Two schools in conflict—the mystical or ideal, holding to religious subjects, treated in a spiritual and conventional manner; and the naturalistic, striving to present on canvas men and women as they appeared in real life. Both schools, however, held closely to religious subjects.
- c. The mystical school represented by Fra Angelico. Note the purity and serenity of his life, and how they are reflected in his works. He painted the walls of the cells of what monastery? Could he, or did he paint the human body? Are his draperies graceful? Note his favorite subjects; the grace, beauty, and spiritual serenity of his angel faces. Study his works in chronological order, and note that his later work becomes more realistic and the faces more individual. What were his favorite subjects?
- d. Masaccio, the first great realist. Study his paintings of the Brancacci Chapel in the Monastery of the Carmine, Florence. Note in his *Expulsion from Eden* the dramatic and expressive handling of the nude. This chapel became the school of Leonardo da Vinci, Michelangelo, and Raphael. What could these artists have learned from these paintings?
- e. Fra Filippo Lippi—by nature a realist, by early education confined to religious subjects after somewhat the old manner. Compare his *Madonna of the Woods* (Berlin), with his *Coronation of the Virgin* (Academy, Florence), and his *Madonna of the Uffizi* (Florence), and notice the difference in spirit, the spiritual vs. the worldly. Fra Lippi the first to paint the Madonna of the individual type. Compare his angels with those of Fra Angelico.
- f. Botticelli—belongs both to early and High Renaissance, a connecting link. Earlier works Christian, later Pagan in subject. One of the first to use Pagan subjects. Make a list of his paintings under each head. Note the graceful curve of the neck characteristic of his women. Show in his pictures that he excelled in depicting or suggesting motion.
- g. What development do you note in the paintings of this period? Is it all for the better? Make a list of minor painters of the period.
- h. Correlation of painting and poetry—Browning's *Fra Lippo Lippi*; his *Pictor Ignotus*, dealing dramatically with the conflict between the mystical or religious and the realistic; Lowell's *Masaccio*; Rossetti's *Spring*, by Botticelli.

3. THE HIGH RENAISSANCE, 1500-1600.

- a. General characteristics of the period—full flood of life, joy in living, swinging away from the medieval religious devotion to worldliness, revival of learning, increased knowledge of the classic in art and literature.
- b. Leonardo da Vinci—called a universal genius: why? In how many lines of activity did he excel? In what cities did he live? Compare the spiritual beauty of his *Madonna of the Lily* (Florence), with the sphinx-like poise and worldly self-assurance of his *Mona Lisa* (Louvre, Paris). What can you say of the "Leonardo Smile," as seen in the *Mona Lisa*, the *St. John of the Louvre*, and other pictures? Study a good print of *The Last Supper* (Milan). Comment on the composition of the picture—that is, the grouping of the figures; also on the expression of Christ's face and on the individuality of the disciples. Subtlety and profound knowledge of the human soul characterize Leonardo's paintings.

- c. Michelangelo—strongly influenced by the study of ancient statuary in the gardens of his patron, Lorenzo di Medici. Great in what three lines of art? What great works in painting did he execute at Rome? Under whose patronage? The leading characteristics of his painting—stupendous imagination and strength of execution. Note other characteristics. Was he greater as painter or as sculptor?
 - d. Raphael—a pupil of Perugino, later worked in Florence, where he felt the influence of Masaccio and Leonardo da Vinci; later called to Rome, where he learned still more from Michelangelo. Consider his works in chronological order and try to note these influences. Note some points of contrast between his life and work and those of Michelangelo. The greatest painter of the Virgin and Child. Compare his *Sistine Madonna* (Dresden) with his *Madonna of the Chair* (Florence). One is the highest type of the spiritual, the other of the earthly. Whether in mother or maid, the leading characteristics of his work are poise, harmony, perfection of form, exquisite grace, dignity of character.
 - e. Andrea del Sarto—known as “the faultless painter,” because of the perfection of his technique. Fell short of the greatest because of lack of dignity and force of character, hence his failure to form the noblest conceptions. Can you feel this in his work? What do you find in his life to substantiate this judgment? What charm do you feel in his paintings? Compare the shadowy outlines of his figures with the clear-cut and firm outlines of Raphael’s. There is a certain peculiarity in Andrea’s coloring. Find out what it is.
 - f. The Venetians. The greatest Venetians belong to the High Renaissance. The greatest of these are Titian, Tintoretto and Paola Veronese. Their work is characterized by splendid architectural backgrounds, with some landscapes; large, handsome men and women; magnificent costumes; rich jewels; great feasts; rich, warm color; in the main worldliness, though now and then real religious feeling. Study the pictures of the artists and try to see all this. Make a list of paintings by each artist under the following heads: Religious, mythological, historical, portraits. Try to find in Tintoretto’s pictures his preferences for dramatic moments; in Veronese’s the splendor of Venetian life; and try to appreciate the harmony and poise of Titian’s work relating him to Raphael and Shakespeare. What relation can you see between the magnificence, wealth, and splendor of Venetian life, the splendid coloring of the Venetian sky and sea, and Venetian painting?
 - g. Correggio—called the “Ariel of painting,” is sometimes compared with Shelley, the poet. Can you see why? Compare his soft cloud effects, his delicate lights and shades, his graceful and exquisite figures, with the heavier and more dramatic effects of Michelangelo, the poetic grace of Botticelli and the fine poise of Titian.
 - h. Correlation of painting and poetry—Browning’s *Andrea del Sarto*, and *The Bishop Orders His Tomb*; Longfellow’s *Michelangelo*; Whittier’s *Raphael*; Arthur Symond’s *Mona Lisa*; Wordsworth’s *The Last Supper*, by Leonardo da Vinci; Shelley’s *The Gorgon Head*, by Leonardo da Vinci; Rossetti’s sonnet, Leonardo’s *Our Lady of the Rocks*.
4. DECADENCE OF ITALIAN ART, 1600.

Approximate perfection having been reached in Italian painting, it began to decline—that is, so long as artists were striving to seek a means of expressing what burned in their souls, art was advancing; having mastered technique sufficiently to do this, having reached the consummation of this balance between great conception and great execution, the artist began to imitate instead of to create, and a decline in art ensued. Perhaps the greatest painters of the decadence were:

- a. Guido Reni, who painted the beautiful *Aurora* (Rome). Note the splendid coloring, the strong action, the grace and the consummate beauty of the figures. Find out which figure is Aurora, which is Phoebus Apollo, and which figures represent the Hours.
- b. Guercino, whose *Guardian Angel* at Fano is noted for its purity and spiritual calm.

Make a list of other paintings of Italian decadence. Show the correlation of painting and poetry in Browning's *Guardian Angel* and *Beatrice Signorini*.

SOME OTHER SCHOOLS OF PAINTING

FLEMISH AND DUTCH. The greatest Flemish and Dutch painters are Franz Hals, Ruysdael, Van Eyck, Van Dyck, Rubens, and Hobbema. Their work is characterized especially by faithfulness to nature in minute details, by scenes in lowly life, by picturesque interiors, and by landscapes of a flat country, often with windmills. Rubens, the richest colorist, and Rembrandt, the greatest of them all, are among the noblest painters of all time. Compare the latter's paintings with those of Rubens and it will be noted that Rembrandt's paintings seem to stand back of the frame, are subdued in coloring, and are characterized by marked lights and shades and by the light centering on a definite point. What about Rubens' paintings?

FRENCH. Unlike the Flemish and Dutch school, the merit of the artists of France lies more in composition and design than in coloring. One of the greatest illustrators of literature is Doré. Note, for example, with what vivid and splendid imagination he interprets such intense and picturesque writings as Dante's *Divine Comedy*, Milton's *Paradise Lost*, Tennyson's *Idylls of the King*, and Coleridge's *Ancient Mariner*. Troyon was the great French painter of animals. Compare his work with that of Landseer. Of the Barbizon group the best known are Millet, Breton, Rousseau, and Corot. Compare the minutely finished, somewhat formal landscapes of Rousseau with the poetic, impressionistic paintings of Corot. Professor Muther writes: "In Rousseau a tree is a proud, toughly knotted personality,—a noble, self-conscious creation; in Corot it is a soft, tremulous being, rocking in the fragrant air, in which it whispers and murmurs of love." Try to feel this difference. Compare the heavy and pathetic aspects of peasant life on the canvases of Millet with the happier and more idealistic presentations of Breton.

Impressionism and traditionalism have both found strong defenders and representatives in the later forms of French art.

ENGLISH. 1. Before the eighteenth century the great painters of England were foreigners employed, in the main, by the Court. These were Holbein, Van Dyck, Zuccaro, and Kneller. What reasons can you give for the late development of painting in England? Compare with the early development of literature, especially of the drama. Make a list of portraits by Van Dyck. Note the characteristics of his style.

2. The Eighteenth Century painters are all eminent. Hogarth was a social reformer—a moralist and satirist. How may this be seen from his paintings? Try to find out the relation of his paintings to the literature of his day. What difference can you see in the styles of Reynolds and of Gainsborough? Name a few paintings by each—portraits of men, women, children, common life, landscapes.

Note.—Some of Reynolds' most widely known works are: *The Age of Innocence*, the *Infant Samuel*, and the great window in New College chapel, Oxford. Professor Gensel, in answer to the question how Reynolds and Gainsborough compare with the greatest portrait painters of earlier centuries, says their relative importance is and will probably remain an open question, and then adds: "We experience before their pictures that pleasure which leaves no room for further desires. Reynolds' 'Nelly O'Brien,' with her bewitching smile and her mystery due to the shadow which is thrown by her hat, impresses us as do the most beautiful women by Rembrandt."

3. The principal painters of the first half of the nineteenth century were the landscape artists—Constable and Turner. Can you see any relation between the painting and the poetry of the period? (Wordsworth, Byron, Shelley, and others were interpreters of nature.) Compare some of Wordsworth's quiet landscapes with Con-

stable's; and Shelley's fine sky and sea effects—as in *The Ode to the West Wind*—with Turner's sky and sea effects. Compare mountain treatment by the poets with that by Turner.

4. Many English painters of the latter half of the nineteenth century belonged to the pre-Raphaelite school,—notably Rossetti, Holman Hunt, Millais, and Burne-Jones. Their aim—to be sincere and true to nature, as were the Italian painters before Raphael. Much of their work illustrates poetry and romance; some of it is on religious subjects. Classify their paintings under these heads. Which of these painters seems least affected,—most direct and simple in his presentation of life? Which is noted for his love of Dante? Which dealt most in medieval romance? What English painter made a specialty of animals? Of classified subjects?

Watts was a dreamer and myth-maker and a painter of allegory. Note how he presents Hope (why blind?), Love, Death, etc. Discuss his mythical conceptions.

AMERICAN. American painting holds a high place in modern art, some of the greatest names in modern painting being those of Americans. What reasons can you think of why America should produce great artists? Why are their leading characteristics freedom from the restraints of tradition, sincerity, sound technique, a genuine and frank treatment of many subjects, beauty of a high character, and especially fine landscape painting?

Four names stand out in the earlier life of the republic as especially great—Benjamin West, John Singleton, Copley, and Gilbert Stuart. Which of these was a Quaker? Which painted portraits of the most presidents? Which was most British in sympathy? What notable work did these men do in England? What is West's most noted painting? Stuart's?

George Inness was an appreciative interpreter of the quieter phases of nature. Try to observe this in his pictures. He interpreted nature with a true poetic soul. He was leader of a school of nature painters.

John Singer Sargent exhibited great dignity and power in his frescoes in the Boston library, especially those of the prophets. Which of these prophets seems to you the greatest creation? Can you see truth and beauty in his portraits? In his portrait of Ellen Terry as Lady Macbeth can you imagine the dramatic moment portrayed?

James McNeil Whistler was more of a poet and dreamer than Sargent. His technique was influenced by the art of Japan. "He was a colorist, not in the sense of the man who combines bright hues in pleasant harmonies, but of him who combines the greatest varieties of shades of a few subdued hues in one grand chord." Try to imagine and feel this while looking at reproductions; try to see and feel it when you see the originals.

John W. Alexander may be studied in his series of frescoes in the Congressional library, Washington, representing *The History of the Book*. Note the dignity of the figures, the fine color tones, the poetic imagination at work in the conceptions.

Study Edwin Howland Blashfield's work in the dome of the Congressional Library at Washington, and comment on it.

Note the splendid imagination and interpretative work of Edwin Austin Abbey in the *Holy Grail* series of the Boston Public Library. Study these in connection with a translation of Wolfram von Eschenbach's *Parcival*, one of Wagner's operas, and Tennyson's *Idylls of the King*. Study also Abbey's illustrations of Shakespeare. Try to discover the dramatic moments presented.

Do you feel that, in his illustrations of *The Rubaiyat* of Omar Khayyam, Elihu Vedder interprets the poet well? Can you realize the weird and mysterious charm of his work? What peculiarity in technique emphasizes this?

John La Farge was especially fine in painting stained glass windows. Study those which are his work and note the general nature of the subjects and of the style. Study in the same way his decorative painting in churches.



SISTINE MADONNA—Raphael



THE LAST SUPPER—Da Vinci

HOW TO STUDY A PICTURE

Look at a picture carefully and see what it has to tell, what it tries to tell. Try to see in each picture that which the artist intended and desired to put there. Look carefully for the inner meaning. Try to feel what you imagine the artist felt when painting the picture.

Art is an interpreter of nature, of life. Learn its language. Paint is the material means by which the immaterial may be expressed. Notice more what is painted than how it is painted. Express in notes what the artist felt and what you feel in looking at the picture. Find just the appropriate adjectives to express shades of feeling. Is the artist's subject or theme worthy? "The finest art is that which speaks of virtue, truth and immortality." The higher and nobler the ideas and the moral sentiments they convey, the greater are the paintings as works of art. Poems and pictures which make us think high thoughts and feel grand emotions belong to the nobility of art. "Art is the uplifting of the beautiful so that all can see and enjoy."

Some painters know the language or technique of art thoroughly, but do not know what to say with it. They have the skill to paint, but no great thoughts to express. Which is better, beautiful ideas with poor technique, or perfect technique with poverty of thought? In considering technique, note especially these points: drawing—faulty or true, clearly marked or indistinct; coloring—rich and mellow or thin and weak, harmonious or in too sharp contrast; perspective—good or faulty; composition—grand, excellent, symmetrical, natural; atmospheric effects—hazy or clear, poetic or commonplace, mysterious, mystic, weird; handling of light and shade—marked contrasts, or rather even diffusion; fine handling of shadows. Does light center on one point?

In the study of the artist's conception, dwell on thought, feeling, imagination, force; are these adequate, or not, to the subject in hand? Note how his conception compares with that of other artists in dealing with similar subjects.

Learn the distinct style and individuality of each artist, as you would that of a musician or a poet. Ask yourself, is the style simple and natural, or somewhat pretentious and affected? Does one type of Madonna, or Babe, or pose, or composition, prevail? What is especially distinctive in each artist's work? For example, the pronounced anatomical effects of Michelangelo, together with his grand conceptions; the Leonardo da Vinci smile, the silvery-gray atmosphere of Andrea del Sarto, the Burne-Jones heads, the mysterious spiral light effects of Whistler. Learn to recognize at sight—even from a print—every important painter.

A STUDY OF LEONARDO DA VINCI'S "LAST SUPPER"

1. When and where painted—ordered in 1496 by Leonardo's patron, Lodovico il Moro, Duke of Milan, for the refectory of the Monastery of Santa Maria delle Grazie.

2. Size—the figures are twice life size.

3. Source of subject—John 13, the account of the Last Supper and the institution of the Eucharist.

4. Dramatic moment—chosen by artist—when Christ utters the words, "One of you shall betray me" (John 13:21), and the apostles start in amazement questioning Christ and each other.

5. Description of the Picture:

(a) The Background—the interior of a room, simple but spacious, with several pillars, beyond which through open windows the distant landscape gives a fine perspective, thus lending to the scene a touch of fresh nature and pure air.

(b) The Foreground—a long table, chaste and pure in its white linen cover, slightly ornamented. Seated, or half standing on one side and at the two ends of the table, are Christ and his twelve Apostles.

- (c) The Central Figure—Christ seated, with six apostles on each side.
 - (d) The arrangement of other figures is in four groups of three each.
 - (e) The first group on Christ's right consists of John, Judas, and Peter. Comment on the expression of hands and face of each.
 - (f) Study in the same way the other groups: the first on the left is made up of James, Thomas, and Philip; in the second group on the left are Matthew, Thaddeus, and Simon; in the second group on the right are Andrew, James the younger, and, at the end of the table, Bartholemew.
 - (g) Study not only the expression of hands, body, and face of each apostle, but also the special expression of each group, and the linking of the groups in unity of feeling as well as in a fine unity of composition.
 - (h) Unity—secured by the concentration of attention on Christ. This is obtained in part by the attitudes of the bodies, in part by the expression of the hands, but mainly through the expression of the faces.
 - (i) Character presentation. Leonardo here shows himself a master of psychology. The divine light in the face of Christ emanates from the central figure like a benediction—pathetic, tender, holy. In the most important group, to the right of Christ, may be seen three distinct and intensely interesting studies—the tender and affectionate John, the best beloved of the Master; the indignant and impetuous Peter, whispering to John a request that he question Jesus; the guilty, sinister Judas, who in his start of surprise and fear has just upset a saltcellar and is reaching toward the dish in which he is about to dip and thus give his Master the occasion of pointing him out as the man of guilt: "It is the one that dippeth with me in the dish."
6. General characteristics. Nobility of conception, understanding of human nature, a deep comprehension of Christ, and simplicity of handling characterize this great masterpiece.
7. The present condition of the picture. It is at present in a faded and worn state, having been many times restored by unskilled hands. In spite of this, however, it retains a certain impressive grandeur and nobility. Reasons for its bad state of preservation are found in that Leonardo experimented with it by applying oil directly to the wall instead of using distemper; in the dampness of the old monastery, and in the mutilation of the picture by copyists, and by the lapse of time. A door was cut through it in the 17th century, and the refectory was used as a barrack during the French and Italian wars.
8. QUESTIONS.
- (a) Compare with other pictures on the same subject by other artists, especially those by Andrea del Castagno and by Andrea del Sarto.
 - (b) How do you account for the great popularity of this picture, and for the general acceptance of the head of Christ as typical?
 - (c) Study the presentation of each disciple, and compare with the way in which each is presented in the Bible.
 - (d) Try to enter into the feeling of each disciple as pictured by the artist.
 - (e) Try to comprehend something of the benignity and graciousness of Christ and to realize how it springs from the divine within him.

SCULPTURE

ANCIENT SCULPTURE

Plastic art is so closely associated with the art of building that what is said about the influences of the one applies equally to the other.

Egyptian. The sculpture of the Egyptians lacks variety, but possesses strength and vigor. The first work was realistic in the extreme (see the statue at Sakhara),

and subsequent reliefs and statues showed scarcely more intellectual power. The work, however, was superb, and shows both dignity and symmetry. Among the best known sculptures are the reliefs in the Rock Temples at Karnak and other points, from the Capital Denderah, Seated Figures of the Pharaohs, and the Sphinxes.

Asiatic. The Assyrian sculpture shows little attempt at idealization. There are few statues, most of the work taking the form of reliefs. In Persia and Nineveh sculpture evinces the practical tendencies of the people. Examples: Relief from Persepolis; Façade of Royal Tombs, Persia; Statues in the Cave of Elephanta, India.

CLASSIC SCULPTURE

Greek. The sculpture, like the architecture, of the Greeks was characterized by great beauty and refinement. The Ionic artists preferred grace; the Doric, force. Famous examples are: The Lion Relief, Gate of Mycenae; the Caryatids of the Erechtheum; the Bronze Head of Zeus; the work of Phidias in the Frieze of the Parthenon (notably the Statue of Athene); Hera by Polycletus; The Faun of Praxiteles; the Disk Thrower and Marsyas, by Myron; the Laocoön and the Apollo Belvedere, Rhodian School; the Dying Gladiator, and the Venus of Milo.

Etruscan. The plastic art of the Etruscans was wrought in metal, baked clay, terra cotta, and bronze, and consisted of decorations for tombs and statues, such as the statue in the Temple of Jupiter Capitolinus, and of The Etruscan Orator.

Roman. As the Greeks were beauty-loving, the Romans adored splendor. Delicacy, harmony, and technique are seen in their sculpture. Examples: The Venus de Medici, by Cleomenes; the Caryatids of the Vatican; Nile Surrounded by Children; Ariadne, and the Statue of Augustus, in the Vatican; Reliefs on Trajan's Column and on the Arch of Constantine; the Battles of Diocletian; the Temple of Vesta; the Pantheon; the Sarcophagus in the Capitoline Museum.

MEDIEVAL SCULPTURE

Early Christian. The plastic art of the early Christians was more crude even than their architecture. Owing to their abhorrence of idolatry, very few statues were made. The best work was: Ornamentations for San Apollinare, Capitals for Ravenna and St. Sophia, and a Sarcophagus for the Church of St. Ambrose. The later Christian Art was influenced by the Byzantine style, which was elaborate and gorgeous in execution. Example: Ivory Carvings on the Throne of Bishop Maximian.

Mohammedan. Little ability in sculpture was shown by these people. As illustrations see the Capital, Alhambra; and the Marble Screens, Taj Mahal.

Romanesque. Characterized by richness of ornament. Examples: Baptistery, Florence; Ivory Relief, Paris; Hunting-Horn, Prague.

Gothic. The Gothic sculpture, like the Gothic architecture, was a modification of the Romanesque. Youthful forms are oftenest represented, marked by grace and purity of style. Examples: The Christ in the Cathedral of Amiens; Figures and Relief from Rheims; Statues from Strasburg; Cain and Abel, Orvieto; Relief, The Betrothal of the Virgin.

Renaissance. Characteristics: Lifelike action, portrait statues, realism. Examples: Ghiberti's Gate; Baptistery, Florence; Madonna of Luca della Robbia; Reliefs of Donatello, Santa Croce and Padua; Statue of Gen. Bartolommeo Colleoni, Venice; Moses, Michelangelo, Rome; Relief from Bronze Door, St. Mark's.

AMERICAN SCULPTURE

The early work of American sculptors was a combination of Classicism and Naturalism, with few exceptions pedantic and sentimental. Many of the sculptors went abroad to study, and often remained there. After the Centennial Exhibition of 1876, plastic art took on a new and higher character, and sculptors worked more on subjects at home. With St. Gaudens it became thoroughly original and American.



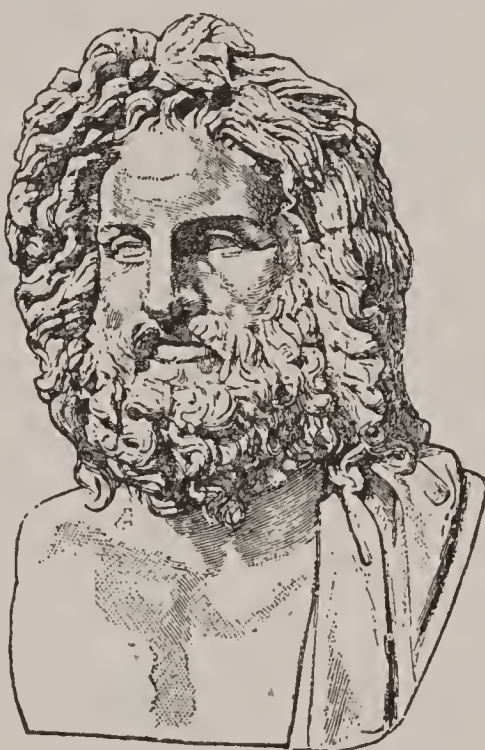
Diana.



Female head of the Athenian school,
supposed to be by Praxiteles.



Augustus as general.



Bust of Zeus.



The Discus Thrower.



The Wrestlers.



Sophocles.

Examples: The Greek Slave, Hiram Powers; Statue of Chief Justice Taney, William Henry Rinehart; Bronze Doors of Capitol, Statue of Liberty, and Equestrian Statue of Washington, Thomas Crawford; Equestrian Statue of General Scott, Henry Kirke Brown; Civil War Group, Augustus St. Gaudens; The Greeley Statue and Beecher Statue, John Quincy Adams Ward; Alma Mater, Daniel Chester French; Lost in a Blizzard, and A Cowboy Mounting, Solon Hannibal Borglum; The Stone Age, John J. Boyle; The Chariot Race, F. G. R. Roth. Among living sculptors the most prominent is perhaps Lorado Taft. In 1893 he won the designer's medal for decorating the buildings of the Columbian Exposition at Chicago. He has been an instructor at Chicago Art Institute since 1886, and has lately published a history of American sculpture.

AUGUSTUS SAINT GAUDENS

The highest representative of American Sculpture is Augustus Saint Gaudens, and to his efforts is due largely the formation of an American School of Sculpture.

Life. Born in Dublin, Ireland, 1848. His father was French, his mother Dutch. At thirteen he was apprenticed to a cameo cutter. He studied at Cooper Union and at the Academy of Design. Twice he went to Paris for study, and he spent three years in Rome. He received many appointments and commissions, was on the jury of the Universal Exposition, 1878, and did excellent service on the Park Commission of Washington, D. C. Because of a nervous temperament he loved retirement, but he was public spirited and always helpful. He felt great sympathy for young sculptors and loved to encourage them, once going some distance to tell a young man what he thought of his beautiful work. His modesty, gentleness, and largeness of mind greatly endeared him to his contemporaries. Degrees were awarded him from Harvard, Yale, and Princeton. He received a special medal at Buffalo from his fellow artists, and a medal of honor at Paris. He enjoyed caricature and was a good storyteller. He formed a warm friendship with Joseph M. Wells, architect. His last days were a struggle against sickness and pain, during which he was invariably cheerful and courageous. He died at Cornish, N. H., Aug. 3, 1907.

Style. His style is a blending of polish and freedom; he excelled in delineation and in the idealization of character, which he portrayed in The Puritan and in his statue of Lincoln. His medallions are delicate and refined, and all his work shows thoroughness. He gave careful thought to the relation of figures and to background. He was thoroughly modern and American in spirit.

Works. Some of his most noted productions are: Hiawatha; the Sherman Equestrian Statue (Central Park, New York); Statue of Farragut (Madison Square, New York); Statue of Lincoln (Lincoln Park, Chicago); the Bas-relief, Adoration of the Cross by Angels (Hartford); the Shaw Monument (Boston); Statue of Diana (Columbian Exposition, Chicago). Some of his other productions are: Statue of Peter Cooper, erected by citizens (New York, Cooper Union); The Children of Jacob H. Schiff, New York; groups at entrance to the Boston Public Library. Reliefs: Robert L. Stevenson; The Puritan, Springfield, Mass.; Family of Richard Watson Gilder; Francis D. Millet and a Caryatid, house of Cornelius Vanderbilt; Grief, on the Adams Monument, Rock Creek Cemetery, Washington.

THE CIVIL WAR GROUP

Saint Gaudens is the sculptor of the Civil War. The statues of Civil War heroes—Farragut, Lincoln, Logan, Shaw, Sherman, are his best work. Farragut, Madison Square, New York, is the first statue he was commissioned to make, and is the best figure of the Admiral known. Energy is the principal characteristic, with comprehension of "quarter-deck spirit." The pedestal is beautiful in its ornamentation.

The Lincoln statue in Lincoln Park, Chicago, is beautiful in its simplicity and

lifelikeness. Lincoln is standing calm and dignified. One hand grips his coat, and his head is bent in the serious attitude so habitual during the dark days of the war period. Saint Gaudens gave much thought to the arrangement of the pedestal, which was designed by Stanford White. His conception of Lincoln has been compared with Lowell's in the latter's *Commemoration Ode*.

Gen. Logan, or "Black Jack" Logan, is the subject of an admirable figure in Grant Park, Chicago, in the crypt under which he is buried. The General, bearing a flag in one hand, is mounted on a spirited horse. The interest of the statue is centered in the action. The monument to Robert Gould Shaw, in front of the State House, Boston, was in progress of execution for many years. It is done in bronze. Shaw has his colored troops about him, and a spirit of excitement and devotion marks the work. In the face of the leader, and in the figure of the angel, there is sadness. The whole possesses unity of composition.

The statue of Gen. Sherman, Central Park, New York, is an example of most painstaking workmanship. (Compare other equestrian statues, as Joan of Arc by Dubois, the Steeds of the Parthenon, the Horses of St. Marks, Marcus Aurelius at Rome.) The chief characteristics are dignity, life, and idealization of commonplace themes. The figure of Victory moving ahead of the General adds to the general impression of onward movement.

ARCHITECTURE.

A sketch of the meaning and general history of Architecture is given in the first volume. It remains to give a working outline of the various periods, including characteristics, best examples, and chief architects.

The three general divisions of Architecture—Ancient, Medieval, and Modern—correspond with the classification of history. The Egyptians and Asiatics (Syria and Mesopotamia) made the most important contributions to this branch of art in the earlier part of the first period; the Greeks, Romans, and Etruscans in the latter part. In all their works may be read the history of their physical environment and religious beliefs.

Egyptian. The Architecture of the Egyptians took the form of burial places for preserving their mummies, or of palaces, monuments, or temples; as, The Pyramids of Gizeh; the Tomb of Cheops; the Sphinx; Obelisks, and the Temples of Karnac, Horus, Philae, and Elephantine. The work is characterized by massiveness and grandeur without progressiveness. Most of the work was done in stone, but brick and clay were also used. (See ART.)

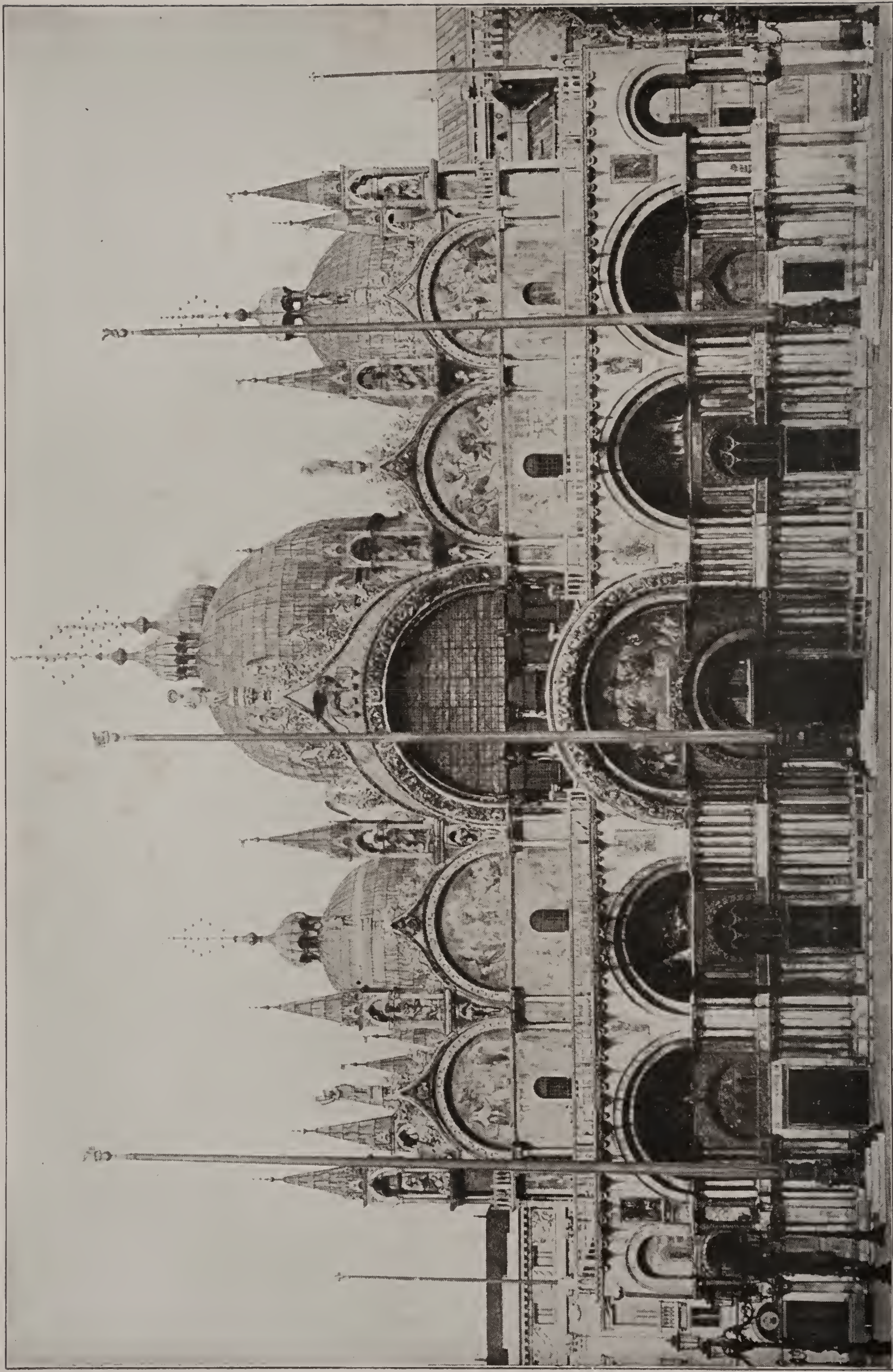
Asiatic. The Architecture of the East, like that of Egypt, displayed colossal proportions and simplicity of design. It took the form of palaces, tombs, and temples. Examples: Palace of Sargon, Assyria; Tomb of Cyrus, Persia; Rock-Cut Tomb at Myra; Cashmere Temple; Tomb of Absalom.

CLASSIC ARCHITECTURE

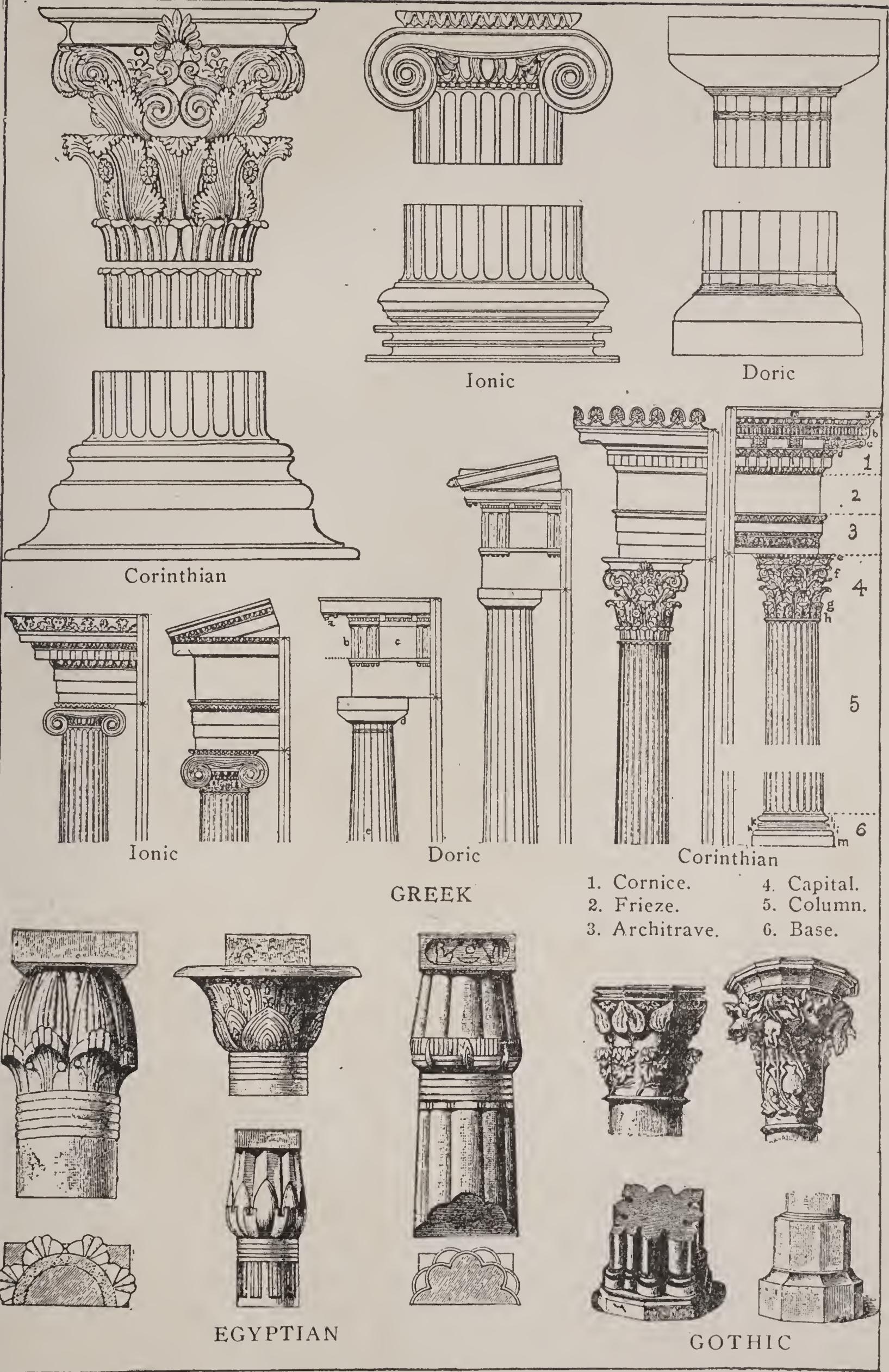
Greek. As exponents of Classic Architecture the Greeks stand first. Their standards furnished a basis for all succeeding art, and made the world eternally their debtor. Their climate and isolation influenced greatly the character of their architecture, making it at once artistic and original. Beauty, richness, and refinement mark their work. Their highest development found expression in temples, and in other works of public interest. The construction was simple—two uprights carrying a crossbeam. (For more complete description see ART.) Examples: The Temples of Neptune; Theseus; Nike Apteros; Zeus; Gate of the Propylaea at the entrance of the Acropolis; The Erechtheum; The Acropolis, or citadel of Athens, contained as first among its magnificent buildings the Parthenon, or temple of Athene, goddess of the city. This was the work of Ictinus and Callicrates. This temple is the best



STATUE OF LINCOLN—St. Gaudens



SAINT MARK'S CATHEDRAL, VENICE



example of the strong, austere Doric style. The weaker style of the Ionic order prevails in the Temple of Pallas Athene, at Priene, and the Corinthian—a modification of the other two orders—in the Monument of Lysicrates.

Roman. Realistic and dominating by nature, the Romans showed less originality in their Architecture than the Greeks, from whom they borrowed. Grandeur of design, variety, and correctness are characteristics of this style. The association of the column with the arch was the distinctive feature of Roman architecture. Examples: The Colosseum; Arch of Titus; Temples of Baalbec; Trajan's column; House of Pansa at Pompeii; the Pantheon.

MEDIEVAL ARCHITECTURE

Early Christian. When Constantine adopted Christianity as the religion of the Roman Empire, the character of art was changed, adapting itself to the changed conditions. Christian Architecture stands between Pagan and Medieval Architecture. The chief monuments are the Catacombs, or underground burial places of the Christians (St. Calixtus), Basilicas, and Mausoleums. The prototypes of the Christian basilica were very probably the old Pagan basilicas used for trade and justice, and the basilica-like halls in private dwellings, where the Christians held their meetings. (See BASILICA.) The earliest buildings were crude and inharmonious, but gradually the work became more artistic and original. Examples: Church of St. Paul, Rome; St. Peter's; Santa Maria Maggiore; Church of San Vitale; St. Sophia at Constantinople; Mausoleum of Theodoric.

Mohammedan. The buildings of this people were influenced by Ancient, Christian, and Byzantine Art. There was no definite style. The exteriors were plain, the interiors fantastic. Examples: Mosques of Amru and Cordova; The Giralda; The Alhambra; Mosque of Ispahan; Taj Mahal, India.

Romanesque. This was an attempt to copy Roman Architecture and apply it to individual countries. Characteristics: Boldness, symmetry, rhythm, beautiful grouping. The Basilica was a modification of the Christian basilica, adopting the cross-vault. Examples: Cathedral at Worms; Cathedral of Lund, Sweden; St. Etienne.

Gothic. The distinguishing feature of the Gothic Architecture is the pointed arch. Towers and minarets complete the cathedrals. The style originated in France, and extended to other lands, enduring as a characteristic style into the sixteenth century. It combined the flying buttress with the Burgundian choir and cross-vaulting. Examples: Church of St. Denis, Paris; Cathedral of Rheims; Town Hall at Münster; Westminster Abbey; The Sainte Chapelle, Paris, and the Church of Bron; Cathedrals of Strasburg, Wells, Worcester, Salisbury, and York.

Byzantine. This was a further development of the Roman style. The position of Byzantium made communication with the East and the West easy and natural, and this doubtless accounts for the fusion of Occidental and Oriental elements in its representative architecture. The characteristic feature of Byzantine art was the use of the dome and a general reconstruction on pendentives which made it possible to erect a round dome over a building having a square floor plan. Byzantine buildings were almost exclusively ecclesiastical in character, the greatest surviving monument being the Hagia Sophia, the mosque of Constantinople. The exterior of the building is severely plain, but the interior is lavishly decorated with symbolic figures of the richest mosaics. Beginning about 1200 the Byzantine influence extended over several centuries, being at one time the dominant style of Christian art. It still survives in the Russian bulbous dome and in the accepted architecture of the Greek Catholic Church.

MODERN ARCHITECTURE

Renaissance (1420-1800). The Renaissance is the name given to the period which marks a new birth in art. Individuality marks the work of this time. At first formal, it became more and more picturesque. It became classic in Italy, spac-

ing and design being the chief concern of masters. The best examples are secular buildings. Illustrations: The Strozzi and Gondi Palaces, Florence; Santa Maria della Grazie, Milan; St. Peter's, Rome; The Palazzo Massimi, Rome; Chateaux-Chambord, Chenonceaux, Azay-le-Rideau, Blois, Fontainebleau; The Louvre, Paris; Cathedral of Toledo, Spain; Heidelberg Castle, Germany.

Nineteenth Century. Architecture is now popularized, no universal or generally prevalent style; subjects largely historical, with a revival of the antique. Examples: Buildings in Berlin, by Friedrich Schinkel; Glyptothek, Pinakothek, Propylaeum by Klenze, Munich; The Madeleine, Vignon, Paris; Parliament Houses, Barry; Cathedral of Adelaide, South Australia; various public buildings in the United States.

AMERICAN ARCHITECTURE

While American Architecture has been the subject of severe criticism in the past because of its imitative character and general lack of adherence to the principles of building, there is no doubt that there is in progress the development of a true national architecture, characterized by beauty and sincerity. Of this there is evidence in many noble buildings. What is known as the Queen Anne style of architecture is the union of free composition with classic detail, and it has not been altogether praiseworthy. In attempting to fit antique detail to modern requirements, the building loses in character. The house of Mr. W. H. Vanderbilt of New York is Roman in its architectural details, but modeled after a portion of the Chateau of Blois. The Tomb of Grant in Riverside is modeled after the tomb of Napoleon in Paris. Modern American Architecture aims at adjustment to changing conditions, and finds expression in skyscrapers and in splendid bridges (see ART). Among the best monuments of American Architecture are the Brooklyn Bridge; St. Patrick's Cathedral, New York, and that of St. John the Divine, in process of erection; the Boston Library; the New Public Library, New York; the Capitol and the Congressional Library at Washington; The Casino, New York; the Postoffice and the Chicago University building, Chicago.

THE CATHEDRAL OF ST. MARK'S

Why Interesting. In Venice all roads lead to St. Mark's. The enthusiastic tourist does not let much time elapse, after arriving in the city, before he visits the Plaza San Marco. The first glimpse of the costly cathedral is like a peep at fairyland, resplendent with jewels and gold. At night the Plaza, or Place, San Marco, is especially fascinating, for then all Venice, seemingly, throngs to the place so dear to the public heart, and music and laughter fill the air. If there are children in the party they will enjoy the pigeons which flock to the Plaza to be fed during the day, and they will watch to see if the horses above the portal really neigh, according to legend, when the clock on the tower across the way strikes the hour. They will accept with eagerness the bits of colored glass distributed freely with sober assurance that they are real mosaics prepared for the Cathedral.

Style. St. Mark's is at once natural and oriental in style. It represents Romanesque, Byzantine, and Gothic influences, and yet the whole effect is one of harmony and unity.

History. The first form of the church was a chapel for the Doge's Palace, in Romanesque style. This was burned, and afterward rebuilt. The main body was completed in the eleventh century, and is Byzantine in style. The ornamentations were added in the seventeenth century. The pinnacles are Gothic. The church is the burial place of St. Mark, who, it is thought, was the first bishop of Venice. There is a legend that in 821, when the church in which the apostle was buried was plundered, a Venetian sea captain brought the body from Alexandria. In order to elude the Mussulmans, he told them he was transporting pork, their abhorrence for which is proverbial. The remains are now under the high altar of the church.

Description. The most important divisions of the cathedral are the façade, or front; the vestibule; the naves or main body, from entrance to choir; the transepts, or part at right angles to nave; the choir; the crypt; the walls and pillars, and the apses or termination of naves and transepts. The church is built in the form of a Greek cross, with four equal wings. There are five domes, the highest reaching about ninety feet from the ground. The five hundred columns are oriental, with elaborately ornamented capitals. The lower part of the walls is inlaid with marbles of different colors. Porphyry, jasper, verd-antique, and lapis lazuli are the materials from which the pillars are made. On the floor is a marble slab marking the place where Barbarossa was beheaded. The three gates are of metal inlaid with silver, and were brought from St. Sophia. The choir decorations represent scenes from the life of St. Mark. Two pulpits were made, one for the preacher and one for the Doge. On special occasions is displayed the Pala d'Oro, or altar piece, wrought on plates of gold and silver, and adorned with jewels.

Statues. On the parapet of the stalls are bronze figures—four evangelists and four great leaders. Fourteen statues on the screen between the choir and nave represent St. Mark, the Madonna, and the Apostles. Very interesting are the four horses above the principal portal. These are of pure copper, once overlaid with gold, and weighing two tons each. They were made by Lyseippas for a triumphal car. They were taken from Rome to Constantinople by Constantine and the Doge Dandolio brought them to St. Mark's. In 1797 Napoleon sent them over the Alps to Paris, where they were placed in the triumphal arch, Place du Carrousel.

Shrines, Tombs, and Chapels. The Zeno Chapel, sixteenth century; Tombs of Andrea Dandolio and Doge Vitale Faliero and Wife; Shrine of Holy Cross; Baptistery or Chapel of St. John.

Mosaics. These "paintings in marble" are done on a background of bright gold. The most famous mosaics are those over the doorways of the principal façade. They picture the Transportation of the Relics of St. Mark's, the Landing, the Last Judgment, the Magistrates, the Entombment, and the Early Church. The Mosaics of the Vestibule represent Old Testament history. Over the entrance is Christ Enthroned. On the walls, the plan of salvation is depicted. There are three pictures of Christ in the Garden, giving in progression the states of mental agony. The Old Testament History pictured on the vault is the work of Francesca and Valerio Tuccato.

General Impression. The most appreciative description of the Stones of Venice is given by Ruskin. He makes real the shadowy aisles, the starlike apertures around the domes of the roof, the far-away casements, the torches and silver lamps in the recesses of chapels, the gold-sheathed roof, the polished walls of alabaster, the halos over sainted heads, and the symbolic designs of birds, serpents, and beasts of prey. Many lands contributed to make San Marco what it is—the greatest wonder of the most wonderful city of the Adriatic.

QUESTIONS FOR STUDY

San Marco—meaning of name.

What can you say about the form and style?

To what periods of Architecture does the Cathedral belong?

Which part shows Byzantine influence? Gothic?

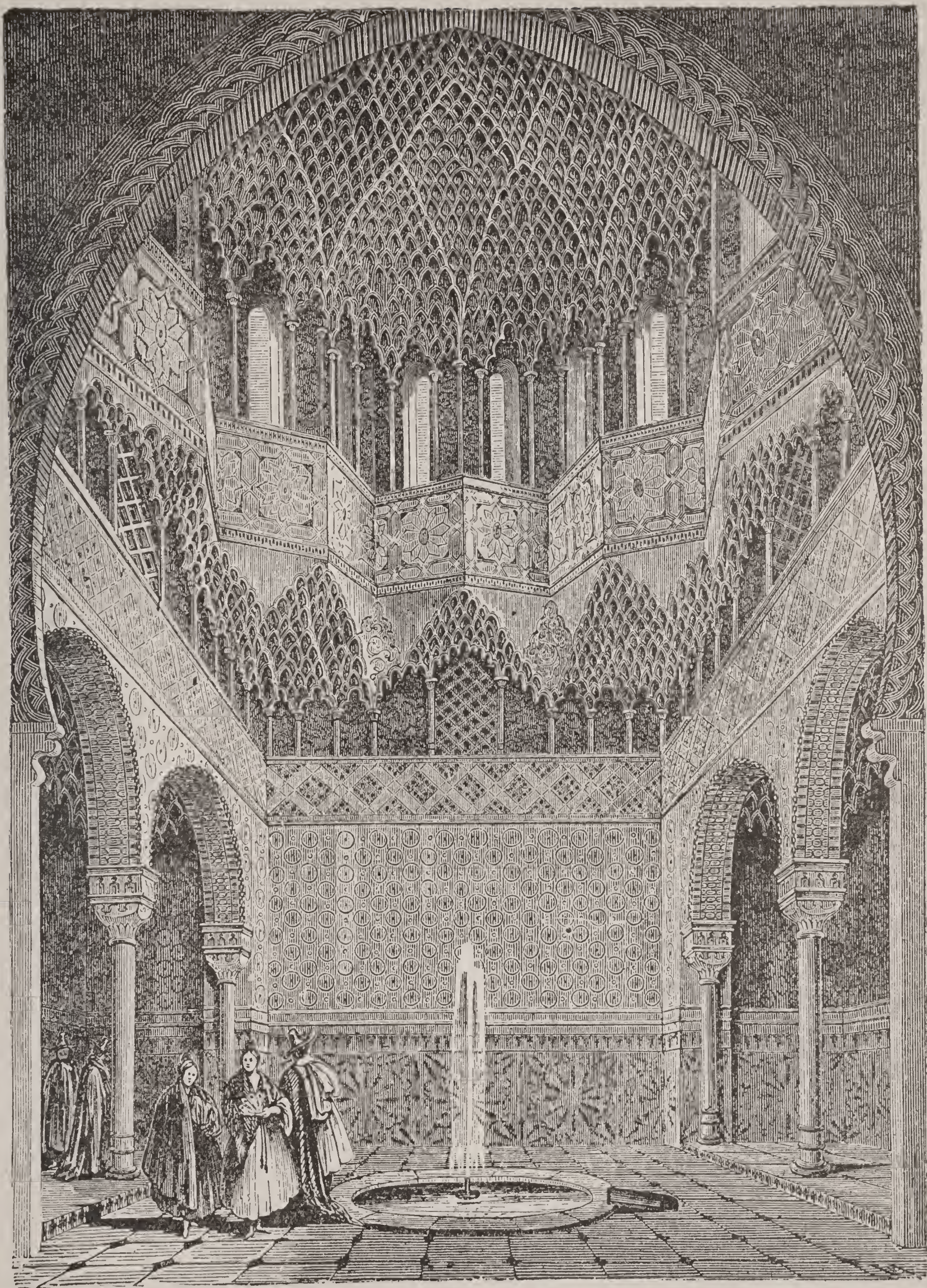
How many entrances and naves has it? How many domes?

Where are the famous horses? Give their history and the legend about them.

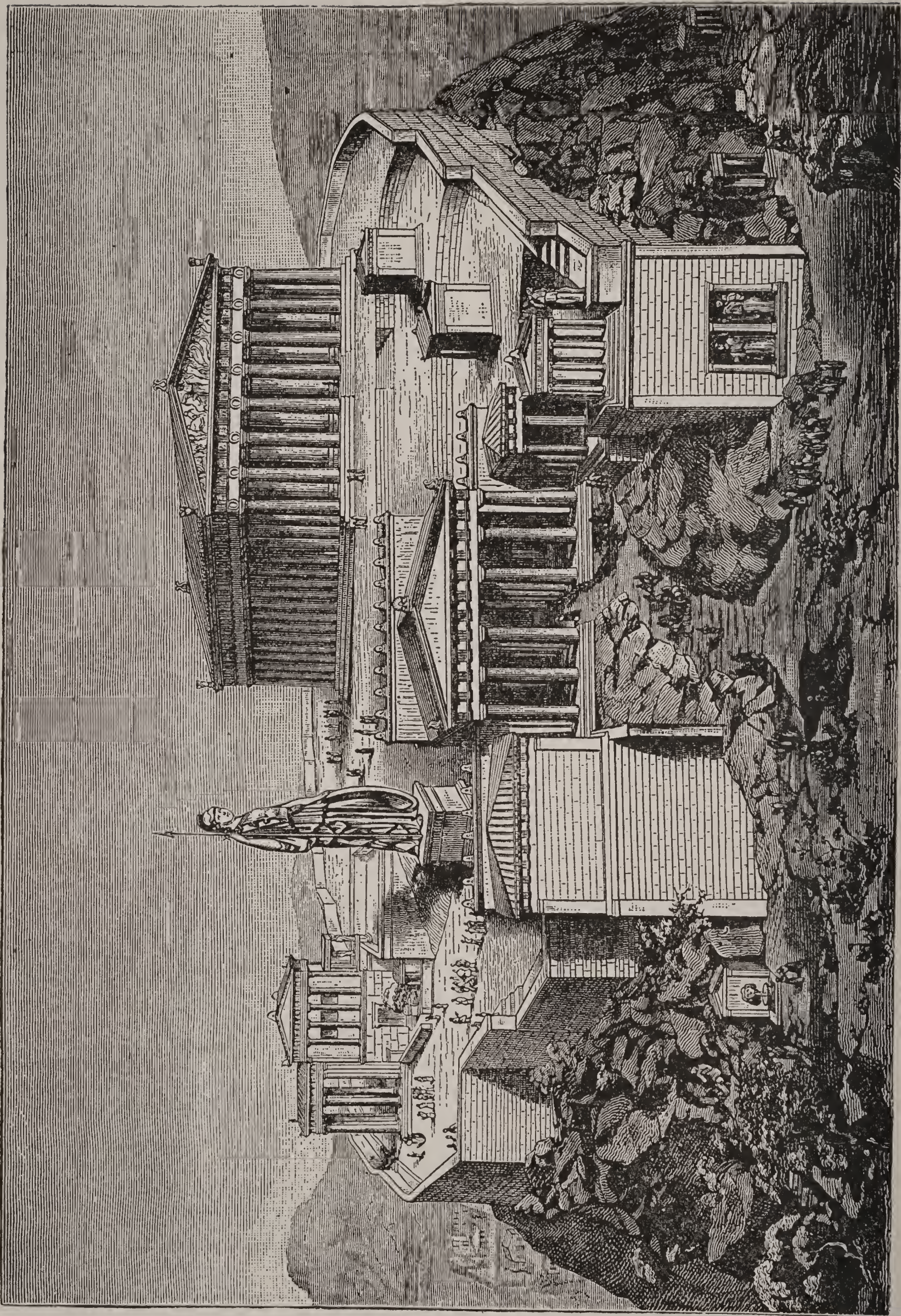
How would their weight compare with that of real horses?

What are Mosaics? What is the difference between turrets and towers? Meaning of façade, nave, transept.

Describe the Mosaics on the façade; in the vestibule; on the inside walls and vault.



ALHAMBRA—Hall of Abencerrages



ACROPOLIS—Restored

AGRICULTURE

Naturally, this is one of the oldest arts in existence. While many of the early peoples lived chiefly by hunting and fishing, yet in all periods of time the earth was looked upon as the mother by whom the race was to be nourished. The word "earth" is derived from a term meaning "the plowing place." And so the times for tilling the ground, for sowing seed, and for harvest, will always be important occasions.

While, like other arts, agriculture has had stages of growth, yet it is only within a comparatively short period of time that the increasing population and the broadening of scientific knowledge has led both political economists and tillers of the ground to note wasteful methods, and to see the advantage of using all the world's wisdom to help make the soil produce more abundantly. The outlines given below are intended to be suggestive and helpful both to the teacher and the general reader. They cover a broad field of information and investigation—especially when taken in connection with the great scope of the articles in the body of this work.

HISTORY AND DEVELOPMENT

1. Peculiarities of Egyptian agriculture.
2. Flocks, herds, field products mentioned in the Scripture.
3. Agricultural pursuits of the Romans.
4. The feudal system of Europe; serfdom, etc.
5. Agriculture and the improvement of farm animals in England, France, etc.
6. Message of President Washington on the importance of cultivating the farms.
7. Message of President Roosevelt on the advantage of scientific farming.
8. Societies for the promotion of agriculture in the United States from 1785 to the present day.
9. Establishment of Agricultural Colleges and Agricultural and Horticultural Experiment Stations made a national policy by the United States.

IMPORTANCE OF THE INDUSTRY

1. FACTS: growth of the population; improvement of animal breeds; work of Burbank and others in creating new and better varieties of fruits and plants; the Pure Food laws; reclamation; peoples of the earth becoming better acquainted, etc.
2. STATISTICS: area of the continents, countries, and states; proportion under cultivation, part given to grazing, etc.; cattle raised and cattle needed; amount of food required and amount raised, etc.

SOIL

I. MEANING OF TERM.

II. PARTS.

1. Soil proper.
2. Subsoil:
 - a. Clay subsoil.
 - b. Hardpan.
3. Bedrock.

III. ORIGIN.

1. Disintegrated rock. (See EROSION.)
2. Decomposed animal and vegetable matter.
3. Decomposed minerals.

IV. FORMATION.

1. Sedentary.
 - a. Residual.
 - (1) Location.
 - (2) Color.
 - (3) Where found.
 - b. Peat.
 - (1) How formed.
 - (2) Where formed.
2. Transported.
 - a. Alluvial.
 - (1) Origin.
 - (2) Examples.
 - b. Wind Blown. (See DUST, DUNE, SAND, BEACH GRASS.)
 - (1) Material transported.
 - (2) Where found.
 - c. Glacial drift. (See ICE AGE.)
 - (1) Where found.
 - (2) How formed.
 - (3) Materials composing.
 - d. Volcanic Ash.
 - (1) Examples.
 - (2) Productiveness.
 - e. "Gumbo."
 - (1) Formation.
 - (2) How broken up.
 - (3) Where found.

V. CLASSIFICATION.

1. As to texture.
 - a. Heavy.
 - b. Light.
2. As to constituents.
 - a. Gravelly.
 - b. Sandy.
 - c. Loamy.
 - d. Clayey.
 - e. Calcareous.
 - f. Humus.

VI. VALUE TO AGRICULTURE DEPENDS ON:

1. Character of original rock.
2. Degree of fineness.
3. Organic constituents.
4. Process of preparation.
5. Changes produced by cultivation.
6. Store of plant food.
7. Moisture.
8. Temperature.

VII. COMPOSITION OF SOILS.

1. Plant foods (rock elements):
 - a. Nitrogen.
 - b. Chlorine.
 - c. Sulphur.
 - d. Phosphorus.
 - e. Silicon.
 - f. Potassium.
 - g. Sodium.
 - h. Calcium.
 - i. Magnesium.
 - j. Iron.
2. Classification of soil foods.
 - a. Active.
 - b. Latent.
 - c. Mechanical.
3. Chemical analysis.

VIII. PHYSICAL PROPERTIES.

1. Most important:
 - a. Color.
 - b. Weight.
 - c. Fineness of texture.
 - d. Structure.
 - e. Adhesiveness.
 - f. Relation to heat, water, and gases.
 - g. Decomposition.
2. Control by man limited.

IX. TEXTURE.

1. Why important.
 - a. Circulation of gases and water.
 - b. Solution and retention of plant food.
 - c. Growth of roots.
2. How improved.
 - a. By cultivation.
 - b. By fertilizing.
 - c. By earthworms.

X. RELATION TO HEAT AND WATER.

1. Temperature of soils.
 - a. Variations.
 - b. Cause of.
 - c. Modified by:
 - (1) Color.
 - (2) Texture.
 - (3) Exposure.
 - (4) Water content.
 - (5) Chemical action.
 - (6) Depth.
2. Moisture.
 - a. Necessary for plant food.
 - b. Needed as a solvent.

- c. Capacity for holding dependent on texture and amount of organic matter.
- d. Readiness of yielding.
- e. How held by soil.
 - (1) Hydrostatic.
 - (2) Capillary.
 - (3) Hygroscopic.
- f. Movement in soil.
 - (1) Percolation.
 - (a) How aided.
 - (b) Benefits.
 - (2) Evaporation.
 - (a) Capillarity and its benefits or harm.
 - (b) How retarded.

3. Dry farming.

XI. WORK OF LIVING ORGANISMS.

- 1. Roots.
- 2. Earthworms.
- 3. Bacteria.
 - a. Decomposed animal and vegetable matter.
 - b. Fix free nitrogen in soil.
 - c. Form nitrates.
 - d. Denitrate soil.

XII. EXHAUSTION OF SOIL.

- 1. Loss of fertility due to:
 - a. Removal of elements without replacing.
 - b. Surface washing.
 - c. Leaching.
 - d. Addition of life-destroying elements.
- 2. Improvements.
 - a. Addition of fertilizers.

- b. Rotation of crops.
- c. Drainage, irrigation, tillage.

XIII. RECLAMATION.

- 1. Processes.
 - a. Drainage.
 - (1) Removes water.
 - (2) Admits air.
 - (3) Permits decomposition.
 - (4) Allows nitrification.
 - b. Irrigation.
 - (1) Need of.
 - (2) Sources of water.
 - (3) Methods of distribution.
 - (4) Advantages.
 - (5) Dangers.
 - c. Paring and burning.
 - d. Addition of fertilizers.
 - e. Increase of humin.

2. Purposes.

XIV. SOIL STUDY.

- 1. Methods.
 - a. Analysis.
 - (1) Mechanical.
 - (a) Hydraulic.
 - (b) Sedimentation.
 - (c) Centrifugal.
 - (2) Chemical.
 - b. Box experiments.
 - c. Field experiments.
- 2. Work in United States.
 - a. Agricultural Experiment Stations.
 - b. Bureau of Soils.
- 3. Work in other countries.

QUESTIONS AND SUGGESTIONS FOR ADDITIONAL STUDY

1. Send to your nearest agricultural experiment station for literature on soil conditions necessary for best yield of crops raised in your locality.

2. Nitrogen is an essential to plant life; however, no plant can take it directly from the air. When supply is exhausted in the soil, what is done to replace it? Read CLOVER, AIR (paragraph on NITROGEN).

3. The chief soil elements necessary for plant growth are nitrogen, potash, and phosphorus. Where these elements are lacking they must be supplied. Nitrogen comes chiefly from decay of organic matter; that is, plant and animal tissue. Phosphorus and potash are natural ingredients of the soil; that is, they come by decomposition of material of the original rock. Cotton draws largely on *all* the soil elements. as does also tobacco, rapidly exhausting the soil. Before scientific fertilizing was so

well understood, the practice was to abandon large areas in the South when the cotton yield was insufficient to pay. This demand for new cotton fields made it necessary that the new territory suitable for raising cotton should come in as slave territory, as without negro labor cotton could not be raised. This was a fruitful cause of agitation preceding the Civil War.

4. What effect does deep tiling have on land? Deep plowing? Do they make the soil too dry in time of scant rainfall? Why?

5. What system of rotation of crops is followed in your locality? What can you tell of other systems? Read ROTATION. Of what advantage is rotation aside from securing plant food?

6. What use is sometimes made of lime in fertilization?

(Valuable additional information will be found in the body of this work under the heads SOIL, CLAY, ROCK, DELTA, DESERT, CHALK, GYPSUM, HUMUS, CHEMISTRY (General Index), EARTHWORMS, FERTILIZER, BACTERIA, IRRIGATION, DRAINAGE, EXPERIMENT STATIONS, DRY FARMING, etc.)

PLANT GROWTH

1. Relation to soil, air, climate, animal life.
2. Elements necessary for healthy plant life.
3. How plants are propagated; seeds, cuttings, fertilization.
4. Best soil conditions, kinds, etc.
5. Grafting, pruning, cross-fertilization, close-fertilization, etc.
6. Plant enemies: insects, disease.
7. Value of crop rotation.
8. Farm plat. (See Chart.)

CROP PRODUCTION AND DISTRIBUTION

1. Kinds of crops.
 - a. Cereal: wheat, corn, rice, buckwheat, etc.
 - b. Orchard or grove: apple, peach, apricot, orange, olive, etc.
 - c. Market garden: root plants, leaf plants, vine products, etc.
 - d. Vineyard: grapes and grape products.
 - e. Small fruit: blackberry, currant, cranberry, etc.
 - f. Nut: pecans, walnuts, cocoanuts, chestnuts, etc.
 - g. Tobacco: Havana, Sumatra, etc.
 - h. Cotton: short staple, Sea Island, etc.
 - i. Hay: clover, timothy, alfalfa, etc.
 - j. Grass: blue grass, bunch grass, wire grass, etc.
 - k. Flower: very numerous.
 - l. Seed: usually cereal, tobacco, cotton, or flower.
 - m. Ordinary garden.
 - n. Nursery: trees, flowers, etc.
2. Commercial Crops.
 - a. Which crops have a general sale? Why?
 - b. Which have a local use? Why?
 - c. How are they transported?
3. Soil Conditions. (See study of SOIL in this article.)

METHODS OF STUDY

OATS

1. What is a cereal? Name other cereals.
2. Classes.
 - a. Spreading or common. Describe.
 - b. Tartarian or banner. Describe.
 - c. Wild, short, and other varieties. Describe.
 3. Origin.
 4. Climatic conditions.

- a. Do oats grow best in hot or cold climates?
- b. How does moisture affect their growth?
5. Cultivation.
 - a. How is the ground prepared for the crop?
 - b. What is the method of planting?
 - c. When usually sowed?
 - d. What about fertilizers?
6. Enemies.
 - a. Insects.
 - b. Plant diseases.
7. Food uses.
 - a. As stock food (stalk, grain).
 - b. As human food (grain).
 - c. How prepared?
8. Distribution.
 - a. Foreign habitat.
 - b. Where grown in United States?
9. Commercial value.

QUESTIONS FOR STUDY

1. Name all the different ways of using oats as food for the lower animals; for man.
2. Find names of all articles on the market manufactured from oats, or which have oats as an ingredient.
3. The cereals are so named from Ceres. Find what you can about her.
4. What are the characteristics of the grass family? Name the different grasses raised in your neighborhood.
5. You will often find plants growing like grass, except they have triangular stems. What are they?
6. Describe the entire process of raising oats from planting to choosing seed for the next planting.
7. What improvements have been made in the harvesting of grains? (See plate.)

CLOVER

1. Belongs to what family?
2. Kinds, number, how distinguished.
3. Most useful varieties.
 - a. Red clover.
 - (1) Description of stems, leaves, bloom, roots.
 - (2) Where grown.
 - (3) Seed, how obtained, market for.
 - (4) Number of crops.
 - (5) Value as pasture, as hay, to bees.
 - (6) Effect on the soil.
 - (7) Use as a fertilizer.
 - b. White clover.
 - (1) Description of stem, flowers, roots.
 - (2) Where and how grown.
 - (3) Use to bees.
 - (4) Not used for pasture?
 - (5) Effect on lawns.
 - c. Alsike (Swedish clover).
 - (1) Description of stony head, roots.
 - (2) Where grown? Why?
 - (3) Relation to irrigation.
 - (4) Uses.
4. Less common varieties.
 - a. Italian or scarlet clover.
 - b. Yellow or hop clover. Habitat.
 - c. Egyptian clover. Uses.
 - d. Rabbit-foot clover.
5. Cultivation.
 - a. Kind of soil needed.
 - b. Preparation of the soil.
 - c. Sowing the seed.
 - d. When can the different kinds be properly used for the purposes indicated above?
 - e. In what ways does clover help the soil?
 - f. How best prepared for use as a food?
 - g. Injurious enemies: insects, diseases, moisture, etc.
6. Value to farmers.
 - a. For pasturage.
 - b. In honey making.
 - c. For hay for animals generally.
 - d. As a food for milch cows.
 - e. In producing mellow soil.
 - f. As a fertilizer.
7. Cross-fertilization.
 - a. What is it?
 - b. How is it accomplished?
 - c. What is its value?

ADDITIONAL FACTS AND QUESTIONS FOR STUDY

An interesting story is told of red clover in Australia. For several years they had tried raising it. It made luxuriant growth, but no seed was produced. Importing seed proved very expensive, so the farmers set about to seek the cause of the trouble. A scientist from this country went down to investigate conditions. He found the soil had the necessary elements, the climate conditions were ideal—in fact, he discovered no cause until he studied the insect world. Here he found the Australian bee had a very short proboscis and was entirely unable to reach the nectar cups; so of course it let the clover alone. What did he do? Simply had a friend box up some bumble bees and send them down. They were turned loose in the clover fields at the proper time and the result was plenty of clover seed.

1. Why is not the white clover suitable for pasture?
2. Write to your nearest agricultural college or experiment station for literature on clover as a fertilizer.
3. Make comparative drawings of leaf and bloom of all varieties you can find.
4. What characteristic of the plant makes alfalfa a good drouth-resisting crop? What has it done for land where clover will not grow? Will alfalfa grow in your neighborhood? If not, why not?
5. Make a test of one cow's milk while feeding her on clover hay; then feed her on alfalfa for two weeks and test. Would it pay to feed alfalfa? Experiment with other forage crops.
6. Learn what you can about the shamrock.
7. What had the clover to do with early church architecture?
8. Where are the less common varieties of clover found? What are their characteristics and uses?
9. What has moisture to do with the growth of clover?

TOMATO

- | | |
|---|---|
| 1. Character and description. | b. Yellow. |
| a. Is it grown from seed or cuttings? | c. Light pink. |
| b. What is the form of its stem? | 5. Uses as food. |
| c. Is it an annual or a perennial? | a. Of green tomatoes. |
| d. What is the appearance of the plant? | b. Of ripe tomatoes, raw. |
| e. By what means is its growth sometimes helped? | c. Of ripe tomatoes, canned. |
| f. What means is used to improve the fruit and prevent its decay? | d. As preserves. |
| 2. Origin. | 6. Food values. |
| a. How first used? | a. Considering its chemical properties. |
| b. How now used? | b. To what extent is it a commercial product? |
| 3. Varieties. | c. Where, when, and how grown? |
| a. The common tomato. | d. What conditions are best for securing both a good crop and a crop of good fruit? |
| b. The pear-shaped tomato. | 7. Enemies. |
| c. The large leaf tomato. | a. Plant diseases, fungicides, ventilation. |
| d. The cherry tomato. | b. Insects (tobacco worm, boll worm, beetle, etc.). |
| e. Miscellaneous kinds. | c. Moisture. |
| 4. Color. | |
| a. Cherry red. | |

SUGGESTIONS FOR STUDY

1. The tomato is classed as a berry, as also is the orange. A berry is a juicy fruit enclosed in an outer covering containing seeds loosely imbedded in a pulpy center. Name some of our common berries that are not really berries.

2. Of what country is the tomato a native?
3. How many varieties have you seen raised in your neighborhood? Look through some seed catalog and count the different varieties. How do you account for so many varieties from one original stock?
4. Do different varieties of tomatoes mix? Try dusting the pollen of red tomatoes on some variety of yellow and watch results. Talk with gardeners about this.
5. What kind of soil is required for a successful yield?
6. Set out two plants of equal growth and development. Let one develop naturally. Train the other upon a trellis and keep pruned. Cultivate both the same way and make all other conditions equal. Notice comparative size of fruit and keep record of yield by pounds. Which way pays best?
7. Draw a leaf; also cross-sections and a longitudinal section of as many different varieties of the fruit as you can find.
8. The braconid is a kind of ichneumon fly. It is a deadly enemy of many others in the insect world from the habit it has of depositing its eggs either upon or within the body of a caterpillar. This does not cause the immediate death of the caterpillar, as the larvæ of the ichneumon depend on the caterpillar's body for nourishment. In fact, the death of the caterpillar does not occur until the ichneumon larvae have spun their cocoons. One can frequently see on the tomato vines a caterpillar having on its back a number of small, round, white objects standing on end. These are pupa cases of the braconids, and you need not bother to kill the caterpillar, as his death is provided for when the eggs are deposited. Instead, watch to see what happens to the pupa cases. Would it be worth while to cultivate the braconids to destroy the caterpillars in the garden?

OUTLINE OF GENERAL COURSE IN PRACTICAL BOTANY

I. Structure and Development of Plants.

1. Seeds—their structure and germination.
2. Soil—constituents, composition, and how it helps germination.
3. Root.
4. Stems.
5. The leaf.
6. Flower.
7. Fruit.
8. Plant cell.
9. Anatomy of stem, root, and leaf.
10. Composition of plants.

11. Work of the roots, stems and leaves: osmosis, transpiration, absorption, photosynthesis, digestion, respiration, etc.

12. Growth.

13. Reproduction.

II. Uses of Plants.

1. As food.
2. As medicine.
3. In the arts.
4. As ornaments, etc.

III. Classification of Plants.

IV. Conditions of Plant Life.

SPECIAL BOTANY OF FARM CROPS

CLASSIFICATION OF FARM PLANTS (VEGETABLE KINGDOM)

1. Beet Family

- { Common beet
- { Mangel-Wurzel
- { Sugar beet
- { Chard, or white beet

- { General Characteristics.
- { Seed germination.
- { Roots and Hypocotyl.
- { Flower.
- { Varieties and uses.
- { Climate and soil.
- { Sowing, yield, composition, diseases

2. Turnip Family.	<ul style="list-style-type: none"> Cabbage, Cauliflower Kohl Rabi Common turnip Rutabaga Rape 	<ul style="list-style-type: none"> (Consider under same headings as family above.)
3. Rose Family.	<ul style="list-style-type: none"> Plum Wild plum Apricot Peach Strawberry Quinces 	<ul style="list-style-type: none"> Cherry. Raspberry. Blackberry. Pear. Apple. Almond.
4. Legume Family	<ul style="list-style-type: none"> Clovers Alfalfa Cow Peas Soy beans Vetches 	<ul style="list-style-type: none"> General characteristics. Root, stem, leaves. Seed germination. Flower, varieties, climate, soil. Sowing, yield, composition. Diseases.
5. Parsnip Family	<ul style="list-style-type: none"> Wild parsnip Parsnip Wild carrot Carrot 	<ul style="list-style-type: none"> (Considered under same headings as Beet Family.)
6. Nightshade Family	<ul style="list-style-type: none"> Potato Tomato Eggplant Pepper Tobacco 	<ul style="list-style-type: none"> Seed and seeding. Root. Stem and tuber. Germination of tuber. Varieties. Climate and soil. Planting, yield, composition.
7. Composite Family	<ul style="list-style-type: none"> Thistle Dandelion Ox-eye daisy 	<ul style="list-style-type: none"> General characteristics. Eradication. Uses.
8. True Grasses	<ul style="list-style-type: none"> Blue grass Timothy Red-top Millets Brome grass 	<ul style="list-style-type: none"> General characteristics. Root, stem, leaf. Inflorescence. Flower. Ripening. Seed.
9. Cereals	<ul style="list-style-type: none"> Wheat Oats Barley Rye Buckwheat Corn Rice Spelt 	<ul style="list-style-type: none"> Grain and germination of seed. Roots, tilling. Flower. Ripening. Varieties. Climate, soil. Sowing, yield, composition.
10. Citrus Fruits	<ul style="list-style-type: none"> Citron (lime) Orange Lemon Grapefruit 	<ul style="list-style-type: none"> How propagated. Grafting, pruning, etc. Varieties. Climate, soil, yield.



1. Sowing the Seed



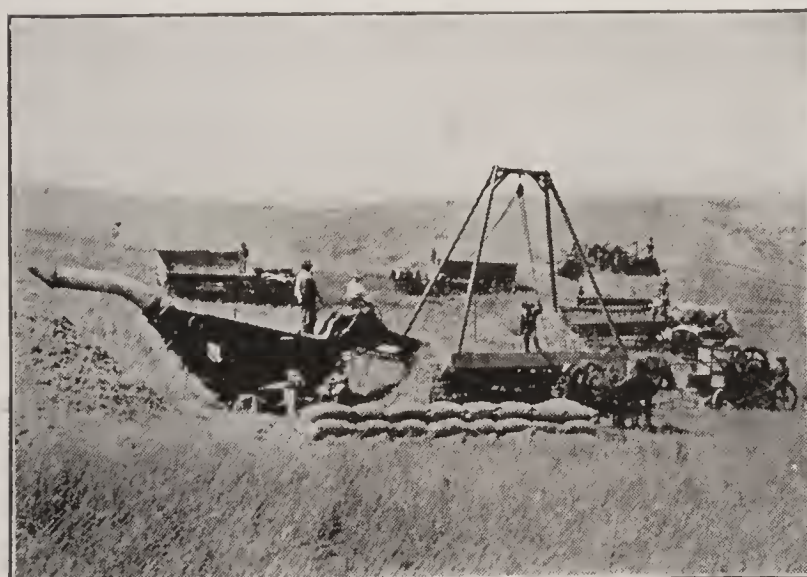
2. Cutting the Ripe Grain



3. Field of Shocks



4. Wheat in the Stack



5. Threshing Scene



6. Combined Harvester and Thresher

WHEAT



1. Planting



2. Cultivating



3. Corn Harvester



4. Fodder in the Shock



5. Corn Picker



6. Husker and Shredder

CORN

11. Olives	<ul style="list-style-type: none"> Fruit olive Ornamental olive Fragrant olive 	<ul style="list-style-type: none"> How propagated. Origin, climate. Yield, uses.
12. Melon Family	<ul style="list-style-type: none"> Watermelon Muskmelon (cantaloupe) Cucumber Squash Pumpkin 	<ul style="list-style-type: none"> General characteristics. Seed germination. Flowers. Varieties. Soil, cultivation.
13. Shrubs	<ul style="list-style-type: none"> Gooseberries Currants 	<ul style="list-style-type: none"> Seeds, cultivation. Climate, soil. Habit of growth. Yield, uses.
14. Weeds of the Farm (General)		<ul style="list-style-type: none"> How weeds are spread. Injurious effects. Duration of weeds. Habit of growth. Extermination. Use as fertilizers.
15. Weed Work (Special)		<ul style="list-style-type: none"> Study of individual types. Study of seed.
16. Farm Seed (General)		<ul style="list-style-type: none"> Purity of sample. Germinating capacity. Speed of germination. Weight. Color, form, odor.
17. Farm Seed (Special)	<ul style="list-style-type: none"> Study of individual seeds 	<ul style="list-style-type: none"> Form. Size. Color. Purity. Germinating capacity. Weight.

OUTLINE OF FARM CROPS

CULTIVATION OF CORN

- History of corn plant.
- Acreage, distribution, production, valuation.
- Classification and botanical characteristics.
- Germination and growth of plants.
- Climate and soil in its relation to corn.
- Selection and preparation of seed corn for planting.
- Care of the corn crop.
- Harvesting and storing of the grain.
- Diseases and insects attacking the corn plant.
- Weeds of the corn field.
- Composition and feeding value of corn.
- Corn silage and the production thereof.
- Corn judging.
- Corn breeding.

CULTIVATION OF OATS

- Selection and preparation of seed.
- Preparation of seed-bed.
- Time of seeding.
- Methods of seeding.
- Depth of seeding.
- Subsequent care.
- Harvesting, stacking, threshing.
- Composition and feeding value.

9. Cost of production.

10. Diseases of the oat plant.

11. Treatment of the same.

12. Insect enemies of the oat field and how to combat them.
13. Weeds of the oat field and how to eradicate them.

Wheat, Barley, Flax, Rye, and Buckwheat may be taken up under practically the same headings as Oats.

CULTIVATION OF GRASSES

Timothy	}	{	History of grass.
Blue grass			Seed for planting.
Orchard grass			Preparation of seed-bed.
Red top			Sowing.
Brome grass			These grasses as pasture.
Meadow grass			These grasses as hay.
Meadow fescue			Composition and feeding value.
Millet			The seed crop.
Johnson grass			Weeds found in meadows and pastures.
Bermuda grass			
Rye grass			
Clovers	}	{	History and distribution.
Alfalfa			Climate and soil.
			Seed.
			Time and method of seeding.
			Legumes as pasturage.
			Composition and feeding value.
			Insect enemies.

ROTATION OF CROPS

1. Purpose.

2. What profit from it?

3. What crops may advantageously follow certain other crops? Why?

FRUIT GROWING

1. Factors in successful fruit growing: location, soil, topography, cultivation, mulching, cover crops, plant, food, manuring, varieties, planting.

2. Orchard protection: injuries, frost protection, foretelling frost.

3. Spraying and spraying apparatus.

4. Principles of plant growth: parts of plant, parts of flower, pollination, fertilizing, hybrids, assimilation, transpiration, rest period, classification of plants, varieties.

5. Propagation of fruit plants: seed, budding, cutting, grafting, pruning, planting, stratification.

6. Apples: kinds and classes, the orchard trees, seedlings, grafting, planting, heeling in, cultivation, pruning and mulching, destroying insect enemies.

7. Plums and Peaches: origin, soil, propagation, planting, insects, diseases and treatment.

8. Grapes: origin, soil, propagation, planting, training and pruning, enemies.

9. Small fruits:

Strawberry: origin, soil, location of soil, manuring, planting, protection, renewing, picking and marketing.

Currant and Gooseberry: origin, soil, planting, pruning, manuring, insects and diseases.

Raspberry and Blackberry: origin, classes, propagation, location, soil, manuring, planting, cultivation, pruning, trimming, mulching, and protection.

VEGETABLE GARDENING

1. Location and soil for early and late crops.
2. Rotation of crops.
3. Tillage: purpose and methods.
4. Garden implements. What are needed? Why?
5. Seed-sowing. Time to sow, depth to plant, manner of sowing, kinds of soils, firming, soil, thinning, transplanting, shortening of tops, and training of plants.
6. Seed-testing. Germinating apparatus; methods of making tests.
7. Glass structures. Cold frames, hotbeds, soil and manures, fire hotbeds.
8. Insecticides and their application. Camphor, Paris green, London purple, arsenate of lead, bisulphide of carbon, kerosene, soap, white hellebore.
9. Classification of vegetables. Tender and hardy vegetables, warm and cold climate vegetables.
10. Botanical characteristics.
11. Directions for cultivation of the following vegetables: sweet corn, asparagus, rhubarb, horse-radish, onions, leeks, garlic, beets, carrots, turnips, spinach, cabbage, cauliflower, kale, kohlrabi, celery, radish, rutabagas, parsnip, parsley, salsify, sweet potato, Irish potato, tomato, eggplant, peppers, cucumber, squash, pumpkin, watermelon, muskmelon (cantaloupe), okra, lettuce.

GARDEN PLANS

Farmers' garden.
Town lot garden.

School garden.
Flower garden.

FARM MACHINERY

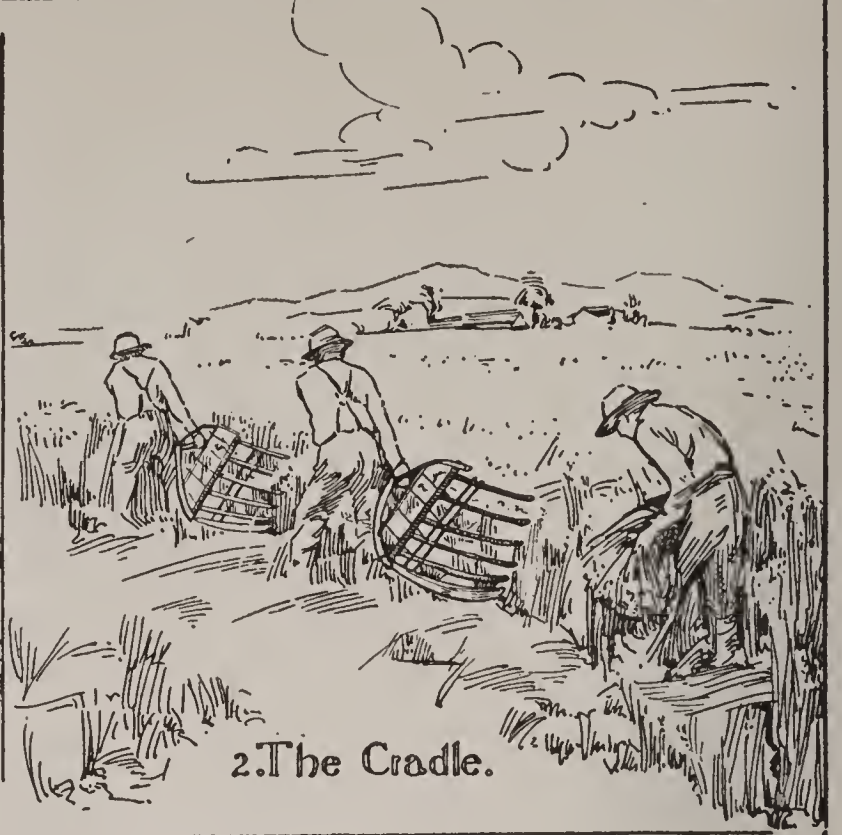
- | | |
|--|--|
| <ol style="list-style-type: none"> I. History and growth. II. Influence upon public welfare. III. Relation to farm, orchard, and market garden crops. <ol style="list-style-type: none"> 1. Greater variety. 2. Larger crops. 3. Better quality. IV. Kinds. <ol style="list-style-type: none"> 1. Reaper and binder, its origin, development, parts. 2. Mower, its invention, forms, parts. 3. Plow, its history, growth, propelling force. 4. Cultivator, varieties, parts, benefit. | <ol style="list-style-type: none"> 5. Corn planter, history, forms, benefit. 6. Grain drill, advantage with grain, with fertilizer. 7. Harrow, forms, purposes, advantage. 8. Cotton planter, cotton gin, cotton harvester. 9. Thresher, first form, modern improvements. 10. Hay rakes and forks, where and how used. 11. Hoe, common rake, spade, ax, pruning knife, etc. V. Use of each Tool. VI. Care of each Tool. |
|--|--|

FARM ACCOUNTS

- | | |
|--|--|
| <ol style="list-style-type: none"> I. Amount of seed per acre. II. Cost of seed per acre. III. Amount of fertilizer used. IV. Kind of fertilizer used (home products; bought). V. Effect of crop on succeeding crop (rotation, etc.). VI. Method and times of cultivation, implements used, etc. | <ol style="list-style-type: none"> VII. Kind and condition of soil. VIII. Weather conditions. IX. Produce per acre. X. Home use. XI. Amount marketed and cost of marketing. XII. Seed observations. XIII. Disease notes. XIV. Insects. |
|--|--|



1. The Sickle.



2. The Cradle.



3. The First Successful Harvester.



4. Harvester: the binders ride.



5. The Self-Binding Harvester.



6. Combined Steam Harvester:

It heads, threshes and sacks the grain.

The Development of Reaping Machinery.

ORCHARD

- | | |
|---------------------------------|---|
| I. Amount of ground in orchard. | IV. Attention given this crop. |
| II. Kind of fruit cultivated. | V. Diseases; insects (treatment, cost). |
| III. Varieties planted. | VI. Results, comments, etc. |

ANIMALS

- | | |
|---|--|
| I. Kinds in general use; how cared for. | VIII. Food required by animals. |
| II. Kind specially bred and raised. | a. Amount. |
| III. Care used in breeding. | b. Kind. |
| IV. Cost of same. | c. For what purpose (fat, flesh, labor, eggs). |
| V. Food used, how prepared, how fed. | IX. Number bought and their cost; died; sold. |
| VI. Special attention given dairy cows. | X. Profit and loss showing at end of year. |
| VII. Yield of each in milk, butter, and cheese. | |

GENERAL

- | | |
|--|--|
| I. Inventory at beginning of year. | V. Value of home labor; how reckoned and paid. |
| II. Inventory at close of year. | VI. Bank account. |
| III. Cash received and from what source. | VII. General improvement account. |
| IV. Cash paid out and for what. | VIII. Best method of keeping accounts. |

ANIMAL HUSBANDRY

- | | |
|---|---|
| I. Domestic Cattle. | Care, feed, and management of the dairy herd. |
| 1. Classification. | III. Hogs. |
| 2. Method of judging. | 1. Origin and domestication of swine. |
| 3. Beef. | 2. Classification of swine. |
| a. Short Horns. | 3. Method of judging. |
| b. Herefords. | 4. Varieties or breeds: |
| c. Aberdeen Angus. | Berkshire. |
| d. Galloway. | Poland China. |
| 4. Dual Purpose Type. | Duroc Jersey. |
| a. Red Polled. | Chester White. |
| b. Devon. | Yorkshire. |
| c. Polled Durham. | Tamworth. |
| d. Brown Swiss. | Origin, history and development. |
| Origin, history, and development. | Development in America. |
| Introduction into America. | Feed, care, and management of hogs. |
| Care, feed, and management of breed cattle. | Discuss trichinae, their cause, their effect, prevention. |
| II. Dairy Cattle. | IV. Horses. |
| 1. Holsteins. | 1. Origin, history, and development of horses. |
| 2. Guernseys. | 2. Anatomy of the horse. (See article on the HORSE.) |
| 3. Jerseys. | 3. Examination for soundness. |
| 4. Ayrshires. | 4. Classification of horses. |
| 5. Durham. | 5. Points to be observed in judging a horse. |
| 6. Devon. | 6. Points to be observed in judging breeding stock. |
| 7. Brown Swiss. | |
| Points to be observed in judging and selection. | |
| Origin, history, characteristics, development. | |
| Introduction into America. | |

7. Varieties or breeds:

Percheron.

Shires.

Belgian.

Clydesdale.

Thoroughbred.

Standard bred:

a. Light and heavy harness horse.

b. The American saddle horse.

Origin, history and development.

Importation into America.

Feeding, caring for, and handling of horses.

Defects to be guarded against.

Diseases and their prevention or cure.

V. Domestic Sheep.

1. Origin and domestication.

2. Classification.

3. Method of procedure in judging fat, also wool-producing sheep.

4. Breeding sheep, its relation to cattle raising, etc.

5. Varieties or breeds:

Leicesters.

Lincolns.

Cotswold.

Shropshire.

Southdowns.

Oxford.

Cheviot.

Dorset.

Hampshires.

Origin, history, and development.

Development in America.

Care, feed, and management of the flock.

Diseases and their prevention or cure.

VI. Poultry.

1. Importance of the poultry industry.

2. Poultry in the United States.

3. Breeds and varieties.

4. Selecting a poultry farm.

5. Fencing.

6. Buildings.

7. Feeding of poultry.

8. Poultry management.

9. Methods of feeding laying fowls.

10. Feeding breeding fowls.

11. Care and management of domestic turkeys.

12. Care and management of domestic ducks.

13. Care and management of domestic geese.

14. Incubation, natural and artificial.

15. Location and construction of incubators.

16. Brooders and brooding.

ANIMAL STUDY—THE HORSE

1. A vertebrate animal. Explain.

2. Wild relatives: zebra, wild ass, quagga.

3. Distinctive feature, one toe.

4. History.

a. Fossil.

(1) Development of foot shape in horses earlier and later fossils.

b. Modern.

(1) Origin, supposed to be the descendant of the wild horse of South America.

(2) When introduced into West Indies, Florida, Acadia, Jamestown, New York, New England?

5. Uses.

a. By early colonists.

b. By trans-Alleghany colonists.

c. By settlers of Great Plains.

d. Supplanted by machinery, in part.

e. Extent of use on farms today.

f. As race horses, draft horses, harness and saddle horses, etc.

6. Enemies.

a. Horse-fly, gad-fly, bot-fly, parasites.

7. Foods.

a. Compare those of wild and domestic horses.

b. Effect on the rearing of horses.

8. Breeds.

a. Track horses.

b. Draft horses.

c. Standard-bred horses.

d. Horses for general farm work.

e. Broncos.

9. Diseases.

- a. Kinds peculiar to horses.
- b. How communicated.
- c. Effect of heredity on disease.

- d. What special care does the hoof require?
- e. Cures.

1. A great deal of energy is lost by the horse in fighting flies. This means not only less work, but also more food, to say nothing of the injury to the disposition of the horse. Would it not be worth while to take steps to destroy the pests? What would you advise?

2. Find cause and remedy for heaves, founder, spavin, bots.

3. Study the illustrations of horses and make comparison between the modern horse and the wild members of the same family, with particular reference to individual parts. Determine how these differences make the modern horse more valuable to man.

4. Read lesson on *Horse Racing*. Which do you think more beneficial to man, development of fast trotting or fast walking? Why?

ARBOR DAY EXERCISES

I. PLANT AT LEAST ONE TREE WITH APPROPRIATE EXERCISES.

II. HOW TO PLANT A TREE.

1. *Dig the Hole Wider and Deeper than the Tree Requires.* The root tips are the feeders and they cover the periphery of the root system. They will reach out during the growing season, forming a new set of feeding roots. They should find only mellow, rich soil in all directions. If the tree just fits into the socket, its roots will meet a hard wall which the delicate tips cannot penetrate and hold fast to, nor feed in. The first year is the critical one.
2. *Be Sure that the Surface Soil is Hoarded at One Side When the Hole is Dug.* This soil is mellow and full of plant food. The under soil is more barren and harder. Some rich garden soil can well be brought over and used instead of this sub-soil.
3. *Take Up as Large a Root System as Possible With the Tree You Dig.* The smaller the ball of earth the greater the loss of feeding the roots and danger of starvation to the tree.
4. *Prevent the Drying of the Exposed Roots.* When root hairs once shrivel they rarely revive. This is the general rule. A tree may survive but would be greatly debilitated by careless handling in this particular.
5. *Trim All Torn and Broken Roots With a Sharp Knife.* A ragged wound, above or below ground, is slow and uncertain in healing. A clean, slanting cut heals soonest and surest.
6. *Set the Tree on a Bed of Mellow Soil with All Its Roots Spread Naturally.*
7. *Let the Level Be the Same as Before.* The tree's roots must be planted, but not buried too deep to breathe. A stick laid across the hole at the ground level will indicate where the tree "collar" should be.
8. *Sift Rich Earth, Free from Clods, Among the Roots.* Hold the tree erect and firm. Lift it a little to make sure the spaces are well filled underneath. Pack it well down with your foot.
9. *If in the Growing Season, Pour in Water and Let it Settle Away.* This establishes contact between root hairs and soil particles, and dissolves plant food for absorption. If the tree is dormant, do not water it.
10. *Fill the Hole With Dirt.* Tramp it well as filling goes on. Heap it somewhat to allow for settling. If sub-soil is used, put it on last. Make the tree firm in its place.

11. *Prune the Top to a few Main Branches and Shorten These.* This applies to a sapling of a few years whose head you are able to form. Older trees should also be pruned to balance the loss of roots. Otherwise transpiration of water from the foliage would be so great as to overtax the roots, not yet established in the new place. Many trees die from this abuse. People cannot bear to cut back the handsome top, though a handsomer one is soon supplied by following this reasonable rule.
12. *Water the Tree Frequently as it First Starts.* A thorough soaking of all the roots, not a mere sprinkling of the surface soil, is needed. Continuous growth depends upon moisture in the soil. Drainage will remove the surplus water.
13. *Keep the Surface Soil Free From Cakes and Cracks.* This prevents excessive evaporation. Do not stir the soil deep enough to disturb the roots. Keep out grass and weeds.—From *Ohio Arbor Day Annual*.

III. SUGGESTIVE EXERCISES.

1. Songs—*The Ivy Green, Hail to the Elm, The Brave Old Oak, A Dream of Summer, The Hemlock Tree, The Tree in Winter*, etc.
2. Story of Johnny Appleseed.
3. What our state is doing in tree planting.
4. Trees as educators.
5. List of state and national flowers.
6. Poems: *A Forest Hymn*, Bryant; *The Oak*, Geo. Hill; *The Rhodora*, Emerson; *To a Mountain Daisy*, Robert Burns; *The Birch Tree*, Lowell; *The Oak*, Lowell; *The Birch Tree*, from *Hiawatha*; *My Hickory Fire*, H. H. Jackson.

SUGGESTIONS ABOUT PLANTS

1. Value of plants.
 - a. For shade.
 - b. For protection.
 - c. For beautifying the home, the schoolgrounds, public parks, etc.
 - d. For purifying the atmosphere.
 - e. For giving pleasure and peace to the sick, the tired, etc.
2. Kinds of plants.
 - a. Wild flowers; as hepatica, violet, wood anemone, wintergreen, bleeding heart, golden rod, field daisy.
 - b. Annuals; as sunflower, petunia, poppy, castor bean, portulaca, sweet pea.
 - c. Perennials; as hollyhock, lily, tiger lily, orchid, chrysanthemum, geranium.
 - d. Vines; as wistaria, clematis, Virginia creeper, Boston ivy, trumpet vine.
 - e. Shrubs; as privet, Japanese barberry, lilac, myrtle, laurel, spiraea, flowering currant, mock orange, snowball, hybiscus, hydrangea.
 - f. Winter bulbs; as daffodil, jonquil, tulip, hyacinth.
 - g. Trees; as elm, maple, birch, rubber, ash, chestnut, hickory, walnut, poplar, tulip, box elder, linden, palm, pine, dogwood, sycamore, magnolia.
3. Methods of propagation.
 - a. Original, by cuttings, by seeds, by bulbs.
 - b. Selected, by securing plants from a nurseryman or florist.
 - c. How to grow from cuttings.
 - (1) Select in the fall after the sap has gone down.
 - (2) Plant in a sand bed about six or eight inches deep, located in a sunny, well-drained spot.
 - (3) Cut the twigs slantingly and about six inches long

- (4) Set them upright in the sand, four inches deep. Water at the time and during the winter. Keep the bed covered with straw, possibly also with brush.
- (5) Transplant in the spring when the cuttings show calluses. Prepare the ground by working it to a depth of six inches; then reset the cuttings three inches apart, in rows fifteen inches apart.
- (6) Cut back to twelve or fifteen inches about Aug. 15.
- (7) Transplant to permanent location about Nov. 1-15.
- e. How to grow from seeds or bulbs.
 - (1) Explicit instructions are usually given with each kind of plant in the catalogs of florists, nurserymen, seedgrowers, etc.
 - (2) Bulbs are usually planted in the fall in boxes, in covered ground, or in earthen pots.
 - (3) The schoolhouse windows and yard can be made very attractive, instructive, and restful to the pupils with a little care and expense.
- f. How to secure help.
 - (1) From the history of Arbor Day, learn its meaning.
 - (2) Study the suggestions in Arbor Day pamphlets.
 - (3) Study pictures and articles in books and magazines.
 - (4) Examine the arrangement of trees, shrubs, and flowers in yards, parks, etc.
 - (5) Study yourself the art of conventionalizing in Drawing, and show how plants help to beautify homes, clothing, etc.
 - (6) Make clear what is meant by landscape gardening, orchard, park, grove, forest, etc.

FAMOUS TREES

1. The Pennsylvania treaty with the Indians was concluded under a large elm tree in Pennsylvania. The spot is now marked by a monument.
2. The "Liberty Elm" stood upon Boston Common. The Yankee Schoolmaster who planted it years before the Revolution dedicated it to the liberties of the colonists.
3. "Washington Elm" was so named from the fact of Washington's having first taken command of the Colonial army under its branches.
4. "Charter Oak." In order to quell the growing spirit of self-government in the Connecticut Assembly in 1687, King James of England sent Andros across the sea to Hartford to demand the surrender of the charter under which the people were governed. Now the charter guaranteed them certain rights which they did not wish to give up; so, when the charter was brought to the Assembly room, according to a plan made before, the lights all went out. When the room was relighted the charter was nowhere to be found. After three years it was brought from its hiding-place in a hollow oak. The chair used by the president of the United States Senate is made of the wood of this tree (which was blown down in 1856).
5. A beautiful sycamore in Ohio was planted by the Cary sisters and is called the "Cary Tree."
6. A twig from the weeping willow at Napoleon Bonaparte's grave at St. Helena was transplanted to Copp's burying ground near Bunker Hill.

QUESTIONS FOR STUDY

Do plants sleep? Pull some clover leaves and take them into a lighted room. What do you find? Examine in the same way the oxalis, the bean, the dandelion, the morning-glory, the four-o'clock, and others. If you had a big variety of flowers you might almost tell time by them. At four in the morning the blue chicory wakes up; at five, the poppy and morning glory; at six, the dandelion; at seven, the water lily; at eight the pimpernel; at nine the tulip and marigold; but the sleepy sweet

pea doesn't wake up until noon. Some of them hardly see any daylight at all. The four-o'clock opens its petals at four; then, at six, the evening primrose. Have you ever seen the night-blooming cereus?

Some of the uses of trees are to add beauty to scenery; to make the air more pure by giving off oxygen; to increase and save rainfall; to prevent floods; to act as windbreaks; to help form soil; to furnish fuel; to make homes for birds and other animals, and to give material for homes for man; to furnish fruits for food; seeds, leaves, and bark for drink; bark for tanning and for cork; sap for turpentine, rubber, sugar; fiber for cordage, brushes, and woven fabrics; roots, wood, and leaves for dyes; roots, bark, and leaves for drugs, etc.

BIRD DAY

I. ECONOMIC VALUE OF BIRDS.

1. To the gardener or florist.
 - a. In the destruction of insects, generally, larvae and eggs, ants, weed seeds, beetles, etc.
 - b. In fecundating flowers.
2. To farmers.
 - a. In destroying weed seeds, insects generally, grasshoppers, cutworms, white grubs, weevils, crickets, rats, mice, gophers, ground squirrels, etc.
 - b. In pollination.
3. To fruit raisers.
 - a. In destroying cankerworms and other worms, insects, etc.
4. To people generally.
 - a. In supplying ornaments.
 - b. In furnishing food.
 - c. By their songs.

II. COMMON BIRDS.

Study the habits of each and determine whether it is a valuable or a destructive bird.

English sparrow,	Cowbird,	Goldfinch,
Field sparrow,	Turtle dove,	Sparrow hawk,
Meadow lark,	Flicker,	Cooper's hawk,
Horned lark,	Red-headed woodpecker,	Duck hawk,
Barn swallow,	Yellowhammer,	Hoot owl,
Blackbird, or bronzed grackle,	Robin,	Screech owl,
Redwing blackbird,	Kingbird.	Crow,
		Wren.

SUGGESTIONS FOR STUDY AND USE

1. Make a list of the birds of your neighborhood and learn to recognize each by sight or call. Learn their nesting and feeding habits. Determine whether to protect or exterminate, and why.

2. Make a complete study of at least one bird. Collect pictures of different varieties of that kind of bird, also of its nest and eggs. Study habits of migration, association with other birds, etc. Learn of the natural enemies of young or mature birds; about bird eggs, etc.; and see how you can help protect all.

3. If you have a camera, make a picture history of an individual bird or pair of birds, taking them in various attitudes (gathering materials for nest building, sitting on the nest, singing, feeding their young, teaching the young to fly, etc.). The goldfinch will be found especially interesting, but even the crow or the hawk will be well worth studying.

4. These birds sing on the wing:

Indigo bird,	Bobolink,	Horned owl,	Nighthawk,
Meadow lark,	Ovenbird,	Kingfisher,	Song sparrow,
Purple finch,	Kingbird,	Swallows,	Redwing blackbird,
Goldfinch,	Baltimore oriole,	Chimneyswift,	Pipit or titlark,
			Mockingbird.

5. It is said a caterpillar devours six thousand times its own weight during a single month. Think what some of the birds do for plant growth in destroying caterpillars.

6. A single flicker has been found to contain 5,000 ants. The mourning dove eats no insects, but the stomach of one was found to contain nearly 10,000 weed seeds. The stomach of a dickcissel was examined and found to contain 27 grasshoppers.

7. Learn what your own state has done and is doing to protect native game birds.

8. Why do we have Bird Day?

9. Poems: *How the Woodpecker Knows*, W. J. Long; *The Brown Thrush*, Lucy Larcom; *Don't Kill the Birds*, Colesworthy; *The Oriole's Nest*; *The Blue Jay*.

MANUFACTURED FROM FARM PRODUCTS

I. FOODS FOR MAN.

1. From plants.

Flour, meal, sugar, syrup, glucose, starch, breakfast foods, cotton-seed oil, canned goods, vegetable butters, grape juice, sauerkraut, macaroni, raisins, pickles, sauces, vinegars.

2. From animals.

Ham, corned beef, bacon, lard, dried eggs, tallow.

II. FOOD FOR LOWER ANIMALS.

Hay, bran, silage, ground food, oil cake.

III. CLOTHING.

Woolen goods, linen goods, leather goods, cotton goods, silk goods, buttons.

IV. DAIRY PRODUCTS.

Butter, cheese, condensed milk.

V. ORCHARD PRODUCTS.

Preserves, brandies, olive oil, fruit butter, dried fruits, canned fruits, candied fruits.

VI. FOREST PRODUCTS.

Lumber, paper, shingles, wooden ware, tanbark, stoppers.

VII. CHEMICALS AND MEDICINES.

Fertilizers, tar, beer, turpentine, linseed oil, whiskies, poisons, pitch.

VIII. MISCELLANEOUS.

Beeswax, buttons, rope, paper money, combs, matting.

IX. TOBACCO PRODUCTS.

Cigars, cigarettes, snuff, chewing tobacco, smoking tobacco, insect destroyers.

ASSOCIATED INTERESTS

1. Forests and Forestry. See Special Article.
2. Horticulture. See body of the work.
3. The Farmer and the Market. See BUSINESS ECONOMICS.
4. Transportation, Commerce, Reclamation. See Special Articles, also see the body of this work.
5. Agricultural Colleges and Experiment Stations. See Special Articles in the body of this work.

CORN

History

- Where first found
- First cultivation by white man
- Its introduction into Europe

Description

- Stalk
 - Size, structure
- Leaves
 - Appearance, position
- Flowers
 - Tassel, silk
- Fruit—ear
 - Cob, kernels

Kinds

- Flint
- Dent
- Sweetcorn
- Popcorn

Culture

- Where
 - United States—chief states
 - Other countries
- Seed
 - Selection

Culture—continued

- Plant, ear, kernels
- Testing
 - Importance, method
- Preparation soil
 - Kind required
- Fertilization
 - Plow, disk, harrow
- Planting
 - Time, hills or rows
- Machinery
- Cultivation
 - Purpose, method, duration
- Harvesting
 - Time, method, machinery
 - Silage, shredding, husking, shelling

Marketing

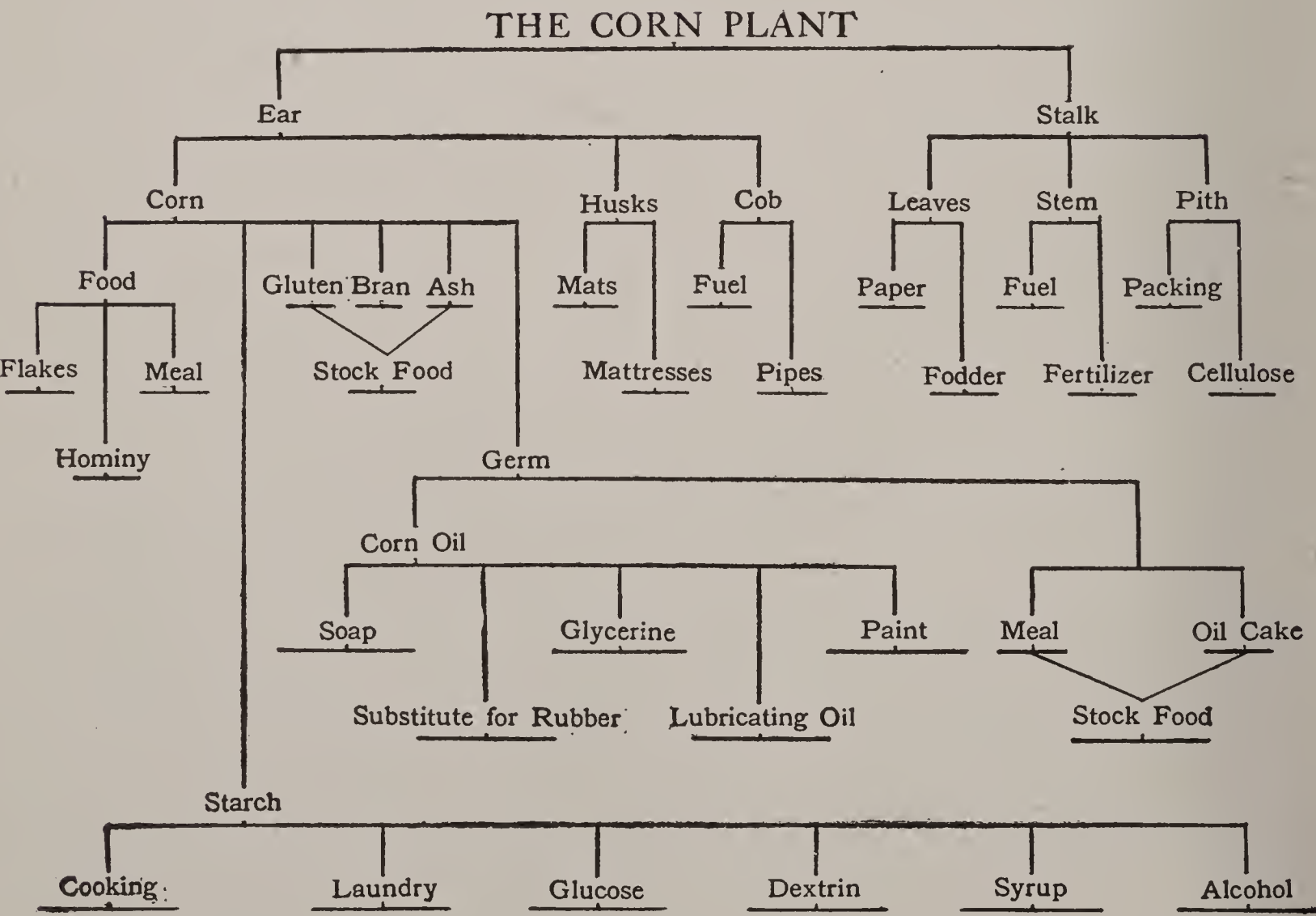
- Domestic
- Foreign

Enemies

- Insect pests
- Diseases

Uses

See below





CORN

1. Mature Plant.	4. Pop Corn.	7. Kernels or Grains.	10. Cross-section of Kernel.
2. Husker and Shredder.	5. Dent Corn.	8. A Sprouted Kernel.	a, Hull; b and c, Seed Food;
3. Sweet or Sugar Corn.	6. Flint Corn.	9. A Young Plant.	e, Embryo stem; f, Embryo root.

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Cane

SUGAR
Beet

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Maple

SUGAR

Composition

Carbon, hydrogen, oxygen
Its chief property—sweetness

Sources

CANE

Where grown
Description of plant
Raising the cane
Suitable land
Planting
Cultivation
Topping
Stripping
Cutting
Sugar Mills
Crushing
Boiling
Refining
Granulating

BEET

Where grown
The beet plant
Field Culture
Planting
Cultivating
Harvesting
Factories
Slicing
(See above)

MAPLE

The tree
Tapping
Boiling

MISCELLANEOUS

Sorghum
Glucose
Milk
Fruits
Honey, etc.

Refineries

Size, equipment
Operation, location

Production and Consumption

WORLD PRODUCTION

Cane
Beet

Total consumption by countries

Amount used per capita

Questions on Sugar

Where is sugar cane supposed to have been first cultivated?
How many pounds of sugar will a ton of cane yield? A ton of beets?
Do you know if the sugar on your table came from cane or beets?
Is there any difference in quality? In price?
How is the coloring matter removed from the beet or cane juice?
What name is given to the crushed cane and what use is made of it?
What color are sugar beets?
Is the pulp after removal of the juice of any value?
What is brown sugar? Loaf sugar? Molasses?
How does sorghum differ from sugar cane?
What is grape sugar? How does it differ from ordinary sugar?
How many pounds of sugar is consumed by each person in the United States per year?
Is glucose a form of sugar? What is its main source?
How often should a cane field be replanted?
How is sugar tested for purity?
What time of year does maple sap run?

HOME ECONOMICS

It is often said that no nation can rise above its homes. Is there a word capable of suggesting a wider range of ideas than this word *home*? To the ancient Roman his home was the abiding place of his household gods; to the medieval baron it was the castle where he maintained his retinue and from whence he sallied forth to his conquests; to the pioneer it was a retreat from his struggles with the forces of nature, the spot where he realized the results of his efforts to live the free, untrammelled life of his convictions.

Today it means to some little more than the place where meals are served and lodging is secured; to others a retreat from the day's labor in the field or at the desk; and to still others a means for enjoying social intercourse with friends and acquaintances.

Whichever of these various phases of home life may contribute to man's enjoyment and to the better realization of what life holds for him, there must be a careful adjustment of household machinery that this may be achieved. The home must first be established, and all the countless minutiae of house building and house furnishing be given thoughtful consideration. After this is accomplished the problem has merely been stated. Its solution demands careful thought and execution each recurring day, that home life shall not be disturbed by any undue friction of the household machinery. More and more attention is being paid to acquiring skill in the performance of the various activities of household routine. Nearly all universities that admit women, normal schools, industrial institutions, many high schools, and even some country schools now offer courses in at least some of the departments in home economics.

The following outlines dealing with these different phases of household science are designed to be suggestive along the various lines treated. By consulting the articles referred to in the body of this work a more comprehensive treatment may be secured than would be possible in a few single articles dealing with these subjects.

THE HOME

THE HOUSE AND GROUNDS—PUBLIC AND PRIVATE HEALTH—SUGGESTIONS AS TO IMPORTANT ECONOMIES—HOME LIFE

I. EVOLUTION OF THE HOME.

1. Need of shelter.
2. Kinds.
 - a. Primitive: cave, hut, snowhouse, tent, tepee, tree dwelling, lake dwelling.
 - b. Ancient: cave, cave-temple, pagoda, palace, Taj Mahal.
 - (1) Homes for the Gods.
 - (2) Homes for the priests and Deities.
 - (3) Homes for the wealthy.
 - (4) Homes for the dead.
 - (5) Homes for the common people.
 - c. Medieval: Baronial hall, castle, villa, hut, houseboat.
 - d. Colonial: mansions, log cabins, plaster house.
 - e. Modern: flat building, bungalow, cottage, house.

3. Development (from being merely a refuge to having many aspects).
 - a. Shelter, sleeping place, depository.
 - b. Workshop and factory as well as home.
 - c. As the center of family life.
 - d. A place for study, invention, literary improvement, etc.
 - e. For the preparation of food.
4. Comparative study of modern homes.
 - a. Local: city, country; temporary, permanent.
 - b. In different sections.
 - c. Newer and older homes: advantages; disadvantages.

(Note how the character of each depends on geographical position, wealth of owner, available material, etc.)

(See articles on ARCHAEOLOGY, MOUND BUILDERS, LAKE DWELLINGS, TEMPLE, TAJ MAHAL, PUEBLOS, HOUSE-BOAT, BUNGALOW, and INVENTIONS.)

II. LOCATION.

1. Site: elevation, soil, slope, natural drainage.
 2. Exposure to wind and air; to moisture; to disease.
 3. Convenience of transportation; adaptability to purpose in view, etc.
- (See articles on THEBES (Egypt), ARCHITECTURE, GARBAGE, SEWAGE, RIVER, LAKE, LAKE DWELLINGS, AZTECS, CASTLES, etc.)

III. ORNAMENTATION (EXTERNAL).

1. Lawn definitely mapped considering:
 - a. Area to be utilized.
 - b. Proposed cost.
 - c. Climatic conditions.
 - d. Soil.
 - e. Exposure.
 - f. Local surroundings.
 - g. Style, natural or formal.
2. Arrangement of trees, shrubs, or flowers.
 - a. To give symmetry to the lawn.
 - b. To afford a pleasing contrast in color and form.
 - c. To provide for a pleasing view.
 - d. To act as a windbreak or a protection against other weather troubles.
 - e. To cover walls and buildings or unsightly features.
3. Walks and drives.
 - a. Curved or winding on large grounds. Why?
 - b. Straight and direct on small areas. Why?
 - c. Material chosen with view to durability, convenience, and pleasing appearance.
4. Grass.
 - a. Kind dependent on soil.
 - b. Watering, fertilizing, cutting, etc.

(See articles on SOIL, CLIMATE, TREE, FLORICULTURE, ARBOR DAY, ARBOR VITAE, GREENHOUSE, GRASS, WIND, FERTILIZER, MORNING GLORY, MOWER, etc.)

IV. CONSTRUCTION.

1. House plan.
 - a. The material is dependent on what is available or on plan, wealth, etc.
 - b. The exterior style should be suitable to the location, or to the prevailing fashion.

- c. The interior arrangement is largely dependent on the means of the family. It should always show good taste. The rooms in number, size, shape; the furniture in character and arrangement; and the lighting and heating should all be adapted to the means of the owner and to the purpose of the home.

2. Visit and study other houses before beginning to build.

V. HEATING, LIGHTING, AND VENTILATING.

1. Study different systems, as to

- a. Construction.
- b. Cost.
- c. Efficiency.
- d. Ease of operation.
- e. Adaptability.

2. Fuel and light.

a. Combustion of fuel.

- (1) Due to consumption of oxygen.
- (2) Air condition requisite.
- (3) Heat due to the values of different fuels, such as coal, coke, oil, gas, wood, etc., and to (a) and (b).

b. Light.

- (1) Obtained from fats, paraffine, electricity, gas, etc.
- (2) Dependent upon proper combustion.
- (3) Should be arranged with a view to (a) protecting the sight, (b) illumination, (c) safety.

3. Necessity for ventilation.

- a. As a necessity.
- b. As an aid to heating and lighting the home.
- c. As an assistance to plant life.
- d. Means for securing proper ventilation are fireplaces, movable window sashes, outdoor sleeping quarters, foul air ducts, etc.

(See articles on HEAT, the various fuels, HEATING AND VENTILATING, LIGHT, GAS, ELECTRICITY, CANDLE, LAMP, etc.)

VI. WATER SUPPLY.

- 1. The various sources of supply, both public and private—rivers, lakes, springs, wells, reservoirs, etc., are abundant.
- 2. The necessity for pure water—for drinking, cooking, bathing, etc., can and ought to be met.
- 3. Purification may be obtained.
 - a. By the operation of natural laws.
 - b. Artificially, filtration, boiling, etc.
- 4. Explanation and use of hard water, "soft water," "mineral water," etc.

(See articles on WATER, RIVER, LAKE, ARTESIAN WELLS, BATH, FILTER, LIMESTONE, CALCIUM, IRRIGATION, AQUEDUCT, MINERAL WATERS, PURE FOOD, WATERWORKS, etc.)

VII. DISPOSAL OF WASTE (SEWAGE AND GARBAGE).

- 1. May be secured by burning, burying, carting away, etc.
- 2. Study methods in United States and other countries.
- 3. Compare city and country methods.
- 4. Find the method best suited to your locality (dependent on the nature of the impurity, and the most available method of purification).

(See articles on GARBAGE, SEWAGE, DISINFECTANT, ANTISEPTIC, DISEASE, MINERAL WATERS, HOUSE FLY, FORMALIN, TYPHOID FEVER, and SANITARY SCIENCE.)

VIII. PLUMBING.

1. Necessity for good work because of danger of infection from defective pipes.
2. Importance of knowing good fixtures by study in their parts and uses.
3. Location with reference to cleaning, repairing, freezing.
4. Examine sketches of plumbing systems, especially in connection with heating apparatus.

(See articles on PLUMBING, DISEASE, BACTERIUM, FILTER, etc.)

IX. FINISHING.

1. Exterior.
 - a. Material and color dependent on locality, taste, exposure to sun and wind, etc.
2. Interior.
 - a. Floors, walls, ceilings from the standpoint of good taste.
 - b. Material and colors governed by durability, cleanliness, suitability, and artistic effect.
 - c. Samples of wood for all interior work should be studied.
 - d. Wall paper should harmonize with woodwork and with the purpose of the room.
 - e. Various finishes and varnishes should be studied.

(See articles on MAHOGANY, SYCAMORE, VARNISH, etc.)

X. FURNITURE AND FURNISHINGS.

1. Their economic value and suitability to the needs of each room.
2. Their sanitary value and ease of keeping clean.
3. Their cost, both when new and for repairs.
4. Their artistic value.
5. Lines, colors, and forms depend on the style of the furniture and finishing; also on the size, height, lighting, and exposure of the rooms, halls, etc.
6. The quality of the hangings, paper, rugs, etc., should match the quality of the wood, its finish, etc.
7. Suitable furniture should be selected for every room. In doing this make everything conform to four conditions—usefulness, adaptability, good appearance, and ease of keeping clean.
8. Select necessary articles. Superfluous ones show bad taste or indicate a desire for display.

(See articles on ART, SANITARY SCIENCE, LIGHT, RUG, PAINTINGS, FURNITURE, etc.)

XI. CARE OF THE HOME.

1. The House.
 - a. Learn its source of dirt—garbage, dust, etc.
 - b. Prevent its accumulation by frequent cleaning.
 - c. Find how to clean ceilings, floors, walls; rugs, curtains, furniture; windows, mirrors, etc. (Even the wealthy should know how to see that the work is properly done by servants.)
 - d. Acquaint yourself with the sanitary importance of frequent and thorough cleaning:
 - (1) In the parlor and living rooms.
 - (2) In the bedrooms.
 - (3) In the kitchen and pantry.
 - (4) In the yard and garbage cans.

- e. Disinfect as well as clean.
- f. Prevent the entrance of vermin, injurious bacteria, etc.
- g. In inspecting the laundry, observe:
 - (1) The water used in washing (hard or soft, etc.).
 - (2) The machinery employed—tubs, wringer, board, washing machine.
 - (3) The materials—soap, starch, bluing.
 - (4) The materials used in removing stains.
 - (5) The effect of heat, water, cleaning agents, sunlight, on different fabrics and dyes.
 - (6) How the ironing is done.
 - (a) Machinery needed.
 - (b) Temperature tests—for wood or coal; for gas; for electricity.
 - (c) The processes of starching, waxing, etc.
 - (7) Care of laundered clothes.

2. The yard.

- a. Prevent the accumulation of garbage.
- b. Keep away dust and filth.
- c. Beautify with shrubs, flowers, trees, etc.

(See articles on SANITARY SCIENCE, GARBAGE, LOOP, HOUSE FLY, BEDBUG, BEETLE, COCKROACH, BACTERIUM, CALCIUM, STARCH, DYE, WAX, etc.)

XII. CARE OF THE PERSON.

- 1. In considering cleanliness keep in mind:
 - a. The bodily excretions.
 - b. How to keep the skin alive, healthful, and attractive.
 - c. The uses of the bath (hot or cold); rubbing, etc.
 - d. The need of exercise and fresh air.
 - e. The care of the teeth, nails, feet and hands, hair.
- 2. In determining a choice of diet, give due weight to:
 - a. The amount of water to cleanse the system or to aid digestion.
 - b. The relative value of vegetables, fruits, and meats.
 - c. The importance of regularity (a fixed time for meals and no eating between the times).
 - d. How the wholesomeness of food is determined by individual conditions, the kind of work, etc.
- 3. Do not forget that regular and a proper amount of sleep add to the general healthfulness of the body, prevent worry, aid right thinking, and help to make a pleasant disposition.
- 4. Study personal health in its relation to public health.
(See articles on LIVER, BATH, SLEEP, TEETH, HAIR.)

XIII. CARE OF THE FAMILY.

- 1. General Care.
 - a. Order, cleanliness, good food.
 - b. Each member has a definite place in home economy.
 - c. Relation of the family to civilization and good government.
- 2. Special Care.
 - a. Care of very young and of very old persons requires patience, kindness, foresight, etc.
 - b. In caring for the sick, observe:
 - (1) The sick room, its arrangement, and that it is neat, dainty, and fresh.

- (2) The bathing, feeding, entertaining, etc., of the patient.
- (3) The qualifications of the nurse and her care of herself.
- c. Infectious and contagious diseases need watching as to—
 - (1) The germ theory about air, water, food, etc.
 - (2) Injurious bacteria from the standpoints of :
 - (a) Conditions favorable to growth (dirt and warmth).
 - (b) Conditions unfavorable to growth (cleanliness, fresh air).
 - (c) The abolition of the common towel, drinking cup, etc. Why?
 - (d) Animals and insects as carriers.
 - (e) The isolation of the patient.

3. Public Care.

- a. Read the suggestions of city and state boards of health.
- b. Avoid the sources of disease in the street, on the cars, in public buildings, etc.
- c. Keep the laws to protect the public from injury.
- d. Show by example the importance of clean streets, of keeping down the dust, of sprinkling and oiling, and of the destruction of the breeding places of flies and mosquitoes.
- e. Give aid to proper examination of the milk, water, and food supply, and to laws to secure quarantine and disinfection.

(Read articles on CIVICS, HOSPITAL, DISEASE, BACTERIUM, DISINFECTANT, INSECTS, HOUSE FLY, MOSQUITO, SANITARY SCIENCE, etc.)

XIV. EMERGENCIES.

- 1. Render first aid to the injured as follows :
 - a. Fainting or swooning—lay flat, give air, sprinkle with cold water.
 - b. In bleeding, bind with ligament, above if artery, below if vein.
 - c. In burns and scalds, apply oils, lard, soda, etc. Keep out the air.
 - d. In drowning, get out the water, get in the air.
 - e. In suffocation, loosen the clothing, get in the air. In every case call in a physician promptly.
- 2. Different kinds require different treatments. Too extensive to be described here. (See article on POISON.)
- 3. Learn the use of stretchers and cots; how to apply antiseptics, bandages, splints, and poultices; learn how to apply the Red Cross outfit by visiting a good hospital or some Red Cross headquarters. (See articles on FAINTING, DROWNING, SODA, POISONS. HOSPITAL, RED CROSS, ARTERY CIRCULATION, ANTISEPTIC, etc.)

XV. MAINTENANCE OF THE HOME.

- 1. Study the relation of the individual to the whole family.
- 2. Consider the household work a common duty.
- 3. The management should be judicious; expenses governed by apportionment of income.
- 4. In buying give consideration to :
 - a. The most economical way.
 - b. The merits and disadvantages of cash and charge accounts.
 - c. Whether to buy in small or large quantities.
 - d. A systematic plan.
 - (1) Plan meals for week and estimate the cost. Compare estimate and results.

- (2) Plan outfits of clothes for different members and estimate the cost.
- (3) Plan a supply of household linen, bedding, etc. Estimate cost.
- e. Keeping accounts of expenditures and estimates, and planning how to meet them out of the income at your disposal.
5. A daily and weekly program should be made out. In this arrange tasks so as to insure performance of the more important; to secure sufficient change of work to avoid fatigue; and so as to make the task suit the time of the member it is allotted to.
6. Provide for leisure time and how to use it to the best advantage.

XVI. RELATION OF THE HOME.

1. Its relation to individual members in the way of training, habits, etc.
2. Its relation in the neighborhood in the way of encouraging friendliness and hospitality, and of discouraging extravagance, carelessness, and bad management.
3. Its relation to the state in the way of securing good citizenship and permanent government.

(See article on CIVICS.)

NOTE—Much additional information may be secured by looking up the General Index and the topics noted in the Special Index.

DOMESTIC SCIENCE

AS APPLIED TO FOOD

I. THE HOME LABORATORY—THE KITCHEN.

1. Location—size, shape, air, light. On what do these depend?
2. Equipment—range, tables, sink, refrigerator, pantry, etc. On what principle to select?
3. What arrangement for ease of use?
4. Care of utensils.
 - a. Reasons for cleanliness, order, neatness, etc.
 - b. Steps to secure durability, freedom from injury, etc.
5. Fuels.
 - a. Values as to
 - (1) Heat (coal, wood, gasoline, oil or fat, etc.).
 - (2) Cost of each and when best to use.
 - (3) Convenience.
 - (4) Cleanliness.
 - b. Combustion.
 - (1) Conditions necessary to good combustion.
 - (2) Process, and how to aid it. Why important?
 - (3) Control of combustion in stove, or how to have a "quick fire" or a "slow fire."
 - (4) Products of combustion: Blaze, heat, smoke, ashes, clinkers, soot.
 - (5) How dispose of these products to the best advantage?

(The reader will find much valuable material in the body of this work under the following heads: LIGHT, COLD STORAGE, OZONE, CARBON DIOXIDE, HEATING AND VENTILATING, ESKIMO, GASOLINE, COAL, CHARCOAL, LAMPBLACK, CHEMISTRY.)



HMHaines.

Labor Saving Devices in the Home

6. Linen—fabrics suited for kitchen use:

- a. The dish cloth for washing dishes and utensils.
- b. The tea towel for wiping dishes.
- c. The hand towel for keeping the hands and face clean.
- d. Care of linen: As to cleanliness, as to right use, as to its place when not in use, as to number, etc.

II. FOOD—ITS KINDS, PROPERTIES, USE, ETC.

1. Water.

- a. Composition of pure water. How to determine if water is pure enough.
- b. Classes.
 - (1) Distilled: object, method, taste, value, use in ice, etc.
 - (2) Mineral: natural, artificial; kinds, uses, etc.
 - (3) Hard: composition, use in medicine, use as food proper, etc.
 - (4) Soft: composition, when beneficial.
- c. Uses.
 - (1) In cooking other food or extracting its properties.
 - (2) As a cleaning agent for the system.
 - (3) Softening and dissolving other food material so the digestive juices can prepare it to be absorbed by the body.
 - (4) In assisting the digestive organs, especially when hot.
 - (5) It may cause disease by carrying various infectious materials into the system.
 - (6) In dissolving and helping to remove waste from the body.
 - (7) In keeping the organs in good condition.
- d. Purification.
 - (1) The filter, its operation, its use, kinds, cleaning, etc.
 - (2) Boiling sterilizes water by removing organic and other impurities.

(See articles on FERMENTATION, TEA, COFFEE, CHOCOLATE, BEER, CIDER, CALCIUM, PULQUE, WINE, WATER, DISTILLING, ICE, ALIMENTARY CANAL, FILTER, AQUEDUCT, SPRING, WATERWORKS, CIRCULATION, ARTESIAN WELLS, RAIN, POTASSIUM, DISEASE, TYPHOID FEVER.)

2. Fruits.

- a. Fresh.
 - (1) Composition and food value of uncooked fruit; of cooked fruit.
 - (2) Methods of preparation with sugar, with spices, with cream, and the value of each as a food.
 - (3) Different ways of cooking: stewing, baking, boiling, roasting; their advantages and disadvantages.
 - (4) The cause of decay; how to prevent it.
- b. Preserved.
 - (1) Purpose to prepare fruits for future use.
 - (2) The drying method.
 - (a) Fruits suitable should be selected.
 - (b) Whether it is best to use the air, or an oven, or kiln.
 - (c) How to protect from flies and other insects.
 - (d) How to keep the fruit good until it is ready to be used.

(3) Canning.

- (a) Different methods.
- (b) Why seal?
- (c) How prevent fermentation?
- (d) What are the signs of fermented fruit?

(4) Pickling.

- (a) Uses of vinegars and spices.
- (b) When can sugar be used?

(5) Preserving in syrup. Is the amount of cooking required the same as for canning?

(6) Jellies, jams, and "butter." What fruits are suitable? How prepared?

c. Injurious preservatives. (See article on PURE FOOD LAW.)

d. Compare fresh and preserved fruits.

(1) As to cost.

(2) As to food value.

(See articles on PURE FOOD LAW, FRUIT TRADE, PLANTS, SCURVY, CHOLERA MORBUS, SPICE, VINEGAR, SUGAR, SUGAR-CANE, WILEY, FERMENTATION, FLIES, PRESERVES, etc.)

3. Vegetables.

a. Elements composing each kind.

b. Classes.

(1) As to composition or food elements.

(2) As to part of the plant used.

(3) As to use and value as a food. Why?

c. Methods of cooking and the comparative value.

(1) Boiling, stewing, steaming, roasting, baking, scalloping, creaming, etc.

(2) Which is best for any particular vegetable?

d. Study of starch in vegetables.

(1) In what form found?

(2) Where stored?

(3) How best rendered digestible?

e. Dressings and sauces: purpose, how made, food value?

f. Cream soups. Why is this form valuable as a food?

(See articles on VEGETABLES, VEGETARIAN, STARCH, BULB, INSECTS, BEET, BEAN, CABBAGE, CANTALOUPE, WATERMELON, EGG PLANT, LETTUCE, PUMPKIN, PARSNIP, CHEMISTRY, etc.)

4. Cereals.

a. Composition or food elements.

b. When and how manufactured. Why?

c. Food value: when cooked at home. Why? When manufactured. Why?

d. Comparative study of different kinds:

(1) As to nutrition.

(2) As to cost.

e. Ways of cooking.

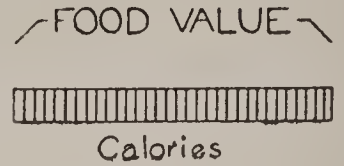
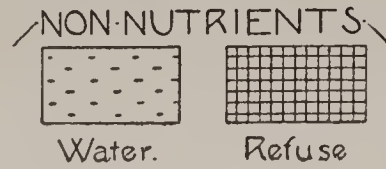
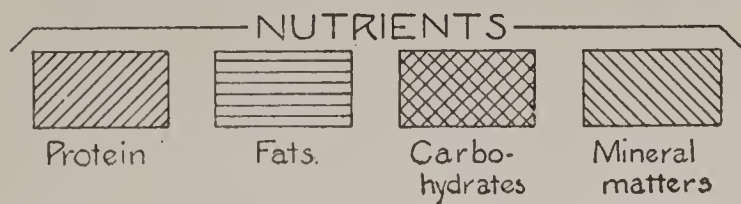
(1) Fireless cooking. What is it?

(2) Double boiler. Why advantageous?

f. Best methods to test as to flavor, digestibility, etc.

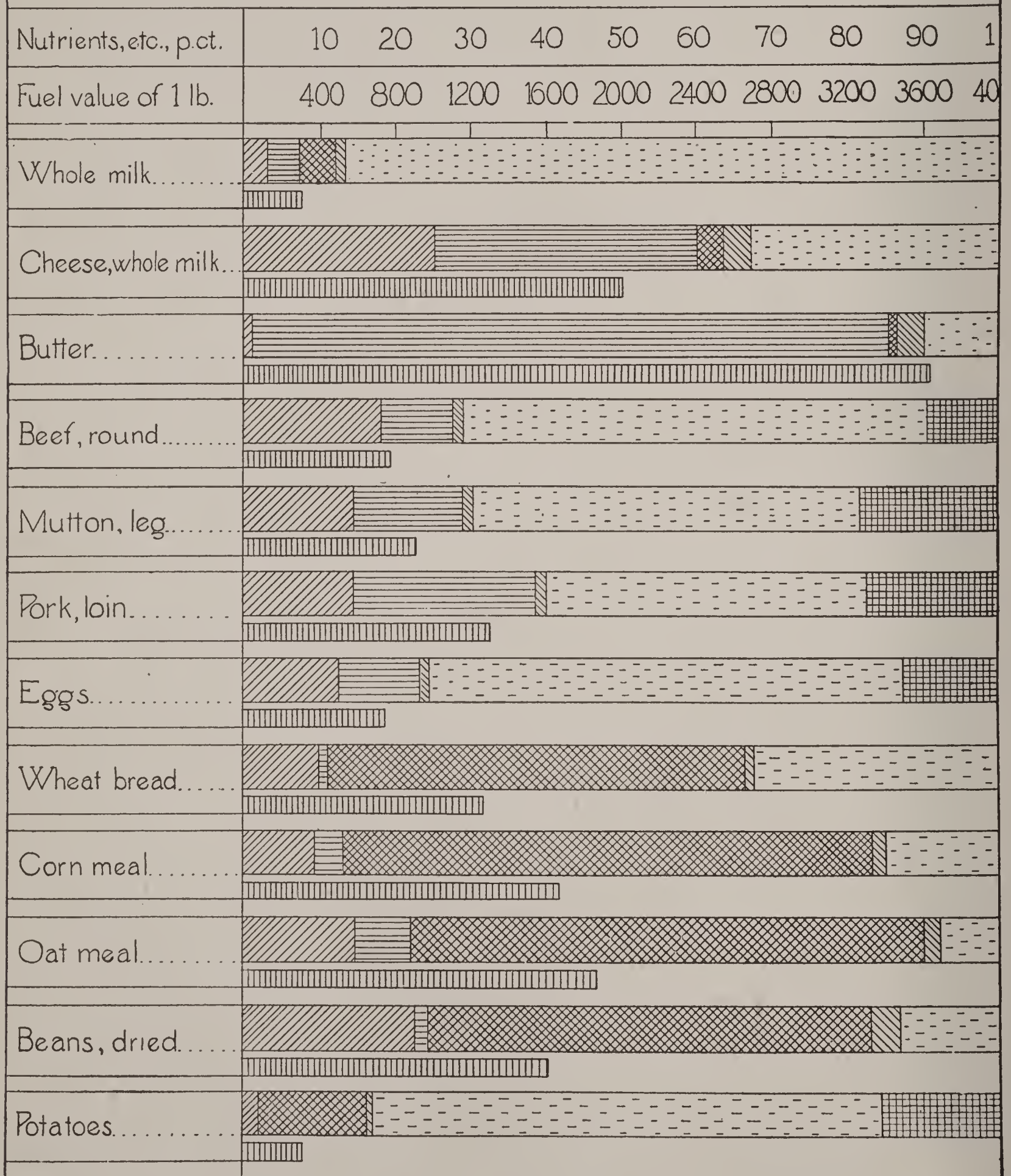
(See article on OATS, WHEAT, CORN, CEREALS, BUCKWHEAT, RYE, BARLEY.)

Composition of Twelve Important Foods



Protein compounds, e g., lean of meat, white of egg, casein (curd) of milk, and gluten of wheat, make muscle, blood, bone, etc.

Fats, e.g., fats of meat, butter and oil
Carbohydrates, e.g., starch and sugar } serve as fuel to yield heat and muscular power.



5. Sugar.

- a. Difference in composition between sugars, starches, and gums.
- b. Forms in use: loaf, granulated, pulverized, brown.
- c. Food value of each: effect on digestion of children and grown persons; excessive use and its results.
- d. Uses in food.
 - (1) On fruit or cereals.
 - (2) In tea, coffee, or cocoa.
 - (3) Frostings, candies, etc.
 - (4) Seasoning vegetables.
 - (5) As a preservative.
- e. Compare homemade candies and those purchased:
 - (1) As to cost.
 - (2) As to taste.
 - (3) As to purity.
- f. Importance of knowing about different adulterants.

(Look up in the body of the work articles on SUGAR, SUGAR-CANE, SORGHUM, MAPLE, BEET, CONFECTIONERY, TEA, COCOA, ADULTERATION, and PURE FOOD LAW.)

6. Milk.

- a. Composition of pure milk and how purity may be ascertained.
- b. Percentage of water, fat, protein, carbohydrates, salts, etc., in good milk.
- c. Food value of each.
- d. Dangers from adulterated milk to children especially; milk sickness, etc.
- e. Manufactured forms, how prepared, and nutritive value of each.
 - (1) Butter.
 - (2) Cheese.
 - (3) Condensed milk and cream (or milk with most of the water evaporated by special process).
 - (4) Milk powder (milk with all water removed).
 - (5) Modified (changed to make infant food).
 - (6) Certified (milk produced and handled under sanitary conditions).
 - (7) Malted (prepared as a food, beverage, or medicine).
 - (8) Milk sugar or lactose.
- f. Effect of different agencies used in manufacturing.
 - (1) Heat kills germs but also changes the character of the milk.
 - (2) Acids—borax, boric acid—conceal dirt and injure health.
 - (3) Rennet curdles milk. When is it beneficial?
 - (4) Bacteria: grow best in warm milk; when beneficial; when injurious.
- g. Care of milk.
 - (1) In the dairy: importance of clean cows, barns, cans, etc.
 - (2) In transit: necessity for ice, rapid delivery, etc.
 - (3) In the home: use clean bottles or pans, ice, covers, etc.

(See articles on MILK, MALT, RENNET, CHEESE, BUTTER, ADULTERATION, CHALK, SANITARY SCIENCE, BACTERIUM, ACID, DAIRY, and FERMENTATION.)

7. Cheese.

- a. Composition and how made.
- b. Kinds: "Cottage Cheese"—how prepared; American, Limburger, Neuchâtel, Swiss, Brie, and when to use.
- c. Digestion and food values of cooked and uncooked cheese.
- d. Effect of heat, bacteria, coloring matter, etc., on cheese flavor.
- e. Use as food, etc.

8. Eggs.

- a. Parts and their composition.
- b. Food value, raw and cooked.
- c. Methods of cooking:
 - (1) Boiling, soft and hard.
 - (2) Poached.
 - (3) Omelet.
 - (4) Fried.
 - (5) Effect of different methods on digestibility.
- d. Methods of preservation:
 - (1) Dry salt.
 - (2) Lime, salt and water.
 - (3) Water glass.
 - (4) Cold storage.
- e. Methods of testing eggs.
- f. Combinations of milk, eggs, and cheese.
 - (1) Milk and egg drinks.
 - (2) Custards.
 - (3) Omelets.
 - (4) Rarebits.
 - (5) Cheese and macaroni.
 - (6) Cheese with toast and milk.

(Read what is said under CHEESE, LIMBURG, SWITZERLAND, EGGS, ANIMALS, COLD STORAGE, NITROGEN, MACARONI.)

9. Meats.

- a. Kinds and relative food value.
- b. Cooking.

Purposes: to make it tender and palatable; to preserve the nutriment; to prevent putrefaction, etc.

Methods:

- (1) General—roasting, boiling, broiling, frying.
 - (a) Relative value of each.
 - (b) Effect of heat differently applied.
 - (c) How to extract or retain juices.
- (2) Special, or how to cook to the best advantage.
 - (a) Pork, veal, poultry, fish, mutton, etc.
 - (b) Heart, liver, etc.
 - (c) Tough cuts.
 - (d) Hamburg steak.
 - (e) A combination with other foods.
 - (f) Meat balls.
- (3) Causes of toughness is found in the connective tissue.
 - (a) Break up by cutting or pounding.
 - (b) Soften by slow cooking.

(4) Uses of leftovers.

(a) Meat pies, sandwiches, meat balls, scalloped meat, hash, beef loaf, veal loaf, etc.

(b) Combined chopped cold meat and gravy to pour over toast.

c. Preservation. Study each form as to method and value.

(1) Cold Storage.

(2) Canning.

(3) Pickling.

(4) Drying.

(5) Smoking.

d. Selection of cuts.

(1) Tenderness and food value depend upon age and condition of animal.

(2) Freshness: how determine in fish, fowl, raw flesh, etc.

(3) Cut selected depends on purpose and proposed cost.

(4) Study different cuts, their use, their food value, and the cost of each.

e. Compare cost of:

(1) Same cut from different animals.

(2) Fresh and preserved meats.

(3) Meat and meat substitutes.

f. Study the laws concerning meats.

(Read articles on MAMMALS, CLAMS, OYSTERS, MACKEREL, SALTPETER, SARDINES, BEEF, BEAR, WALRUS, SEAL, HOG, SHEEP, CHICKEN, FISH, DEER, SNAILS, CRAYFISH, LOBSTER, TORTOISE, TURTLE, MOOSE, OPOSSUM, HIPPOPOTAMUS, etc.)

10. Gelatine, or animal jelly.

a. Source and composition.

b. How prepared or obtained.

c. Properties, and value as a food.

d. Compare the gelatine of bone and meat with fruit jelly, with gluten, and with commercial gelatine.

(Read what is said about GELATINE, ISINGLASS, TENDON, FRUITS, GLUTEN, etc.).

11. Legumes and nuts.

a. Composition and difference.

b. Food value as to digestibility and use in the body.

c. As substitute for meats.

(1) Nuts and their different uses as foods.

(2) Baked and boiled beans.

(3) Pea and lentil soups.

(See articles on NUTS, PEA, PEANUT, WALNUT, BEAN, ALMOND, BRAZIL NUT.)

12. Fats.

a. Composition and how distinguished from lean meat.

b. How distinguished from oils.

c. As a food.

(1) Digestibility: of animal fats; of plant fats.

(2) Physiological use, especially in cold climates.

d. Structure of fatty tissue in animals.

e. Kinds of animal fats:

(1) Butter fat.

(2) Cottolene. From what obtained?

(3) Lard. With what often mixed? Does this injure it as a food?

f. Kinds of plant fats.

g. Uses.

(1) In shortening.

(2) In seasoning.

(3) In frying.

(4) As raw food.

h. Effect of application of heat.

i. How to render and clarify.

j. How to use to prevent:

(1) Soaking of food.

(2) Burning and scorching.

(3) Danger from combustion.

(4) Injury to the system.

k. Compare the cost of different kinds of fats.

l. Study the principle and the best methods of soap making.

(Read articles on FATS, OILS, ESKIMO, SEAL, WHALE, COTTON, SHEEP, PEANUT, LARD, SALMON, BUTTER, NUTS.)

13. Combination.

a. Flour mixture.

(1) Manufacture and composition of flour.

(2) Kinds of flour:

(a) As to grain used.

(b) As to manufacture.

(c) As to constituent elements.

(3) Food value of each kind.

(4) What it is and how produced.

(a) Soda, or bicarbonate of sodium, or saleratus.

(1) Composition; distinction from sal soda.

(2) Chemical action when combined with sour milk.

(3) Use alone; as part of a baking powder.

(b) Cream of tartar.

(1) Source, how made, appearance, taste.

(2) How used alone; as part of baking powder.

(c) Baking powder.

(1) Composition.

(2) Effects of moisture and heat.

(3) Common adulterants—how detect.

(4) Residues, and physiological effect.

(d) Yeast.

(1) Origin in bacteria.

(2) Manufacture.

(3) Fermentation effect, together with the conditions necessary and the conditions unfavorable.

(4) Effect when mixed with flour.

(5) Elasticity of gluten and albumen of egg.

(See articles on FLOUR, YEAST, SODIUM, CREAM OF TARTAR, WHEAT, BUCKWHEAT, BAKING POWDER, YEAST, ADULTERATION, FERMENTATION.)

b. Bread made from flour.

(1) Kinds: with yeast; without yeast; unleavened bread; rye bread.

(2) Methods.

(a) In yeast or raised bread.

Things required are yeast, flour, salt, warm milk or water, lard or butter.

Temperature required at making and while baking.

Milk for moisture, when not desirable.

Why souring sometimes takes place.

(b) Quick breads.

The leaven used is usually compressed yeast.

(c) Baking.

Temperature and time; importance of uniform heat.

Chemical changes and their causes.

(d) After baking.

Changes taking place in the crumb or crust.

Effect of stale bread on digestion.

(3) How prevent mold or drying out; how protect from meal moth and meal worm.

(4) Compare homemade bread and baker's bread with reference to:

(a) Their appearance and contents.

(b) Their digestibility and why a difference.

(c) Cost compared with contents and value.

(5) Compare equal weights of bread and meat, potatoes, milk, etc.:

(a) As to nutriment.

(b) As to cost, considering food value, etc.

(6) Compare fresh bread, stale bread, and toast as to digestibility.

(Much valuable information and numerous suggestions will be obtained by reading the articles in the body of this work on BREAD, BREADFRUIT, YEAST, RYE, SALT, CORN, SODIUM, BAKING POWDER, ALIMENTARY CANAL, MOTH, FERMENTATION, MILK.)

c. Biscuits.

(1) Usually made with flour, saleratus, and milk or water, or baking powder.

(2) Light rolls usually have yeast as a leaven.

(3) Conditions necessary to secure each of these; also "beaten biscuit."

(4) Temperature and time required, and why they are different.

d. Bread made from cornmeal.

(1) Egg bread: how made, value as a food.

(2) Corn pone or hoe cake: content, food value.

e. Cakes.

(1) Classes :

Leavened and unleavened.

Those made with butter.

Those made without butter.

(2) Leavens used are baking powder and sweet milk, or soda and sour milk.

(3) Conditions requisite for digestibility ; for good flavor.

(4) Time required for baking, and proper temperature for large cakes ; for cookies.

(5) Causes of bursting and falling.

(6) Filling or icing : their materials, when prepared, how best prepared.

f. Griddle cakes, muffins, etc.

(1) Variations of bread or cake.

(2) Conditions necessary to digestibility.

(See articles on FLOUR, BAKING POWDER, BUTTER, COTTON, SODIUM, SUGAR, STARCH [CORN].)

g. Pastry.

(1) Plain and puff paste or crust.

(2) Proportion of flour and shortening.

(3) Temperature and time for baking.

(4) Relation of cooking to content for digestibility.

h. Salads.

(1) Materials used :

(a) Salad plants—lettuce, celery, cress, etc.

(b) Fruits—apples, oranges, bananas, etc.

(c) Vegetables—cabbages, tomatoes, peppers, etc.

(d) Meats—chicken, lobster, crab, shrimp, etc.

(e) Nuts—pecans, almonds, walnuts, etc.

(f) Cheese.

(g) Eggs.

(h) Leftovers.

(i) Oil.

(2) Preparation.

(a) Thorough washing of raw materials.

(b) Crispness or freshness necessary.

(c) Low temperature required, if cooked.

(d) Thorough chopping and mixing.

(3) Study color arrangement in dish.

(a) Red of pimentos, tomatoes, beets, etc.

(b) White of celery and eggs.

(c) Green of lettuce, cress, etc.

(d) Varieties of meats, fish, fruits, etc.

(4) Salad dressings : how made ; when used.

(a) French.

(b) Mayonnaise.

(c) Cooked.

(d) Cream.

(5) Value.

(a) As food.

(b) As variety.

(c) Use of small quantities and leftovers.

(Read articles on LETTUCE, CELERY, APPLE, ORANGE, BANANA, CABBAGE, TOMATO, PEPPER, CHICKEN, LOBSTER, SHRIMP, OIL, OLIVE, PECAN, ALMOND, CHEESE, EGG, BEET, CRAB.)

i. Frozen dishes.

- (1) Value as a food ; danger in their use.
- (2) Kinds and their composition :
 - (a) Water ices.
 - (b) Sherbets.
 - (c) Ice creams.
- (3) Theory of freezing.
 - (a) Cause.
 - (b) Freezing agents.
 - (c) Construction of freezer.
- (4) Care of freezer as to cleanliness ; as to use.
- (5) Cost of frozen desserts when homemade ; when bought.

j. Desserts not frozen.

- (1) Custards, puddings, fruit dumplings, etc.
- (2) Value :
 - (a) As food.
 - (b) As variety.
- (3) Suitable combinations :
 - (a) Of milk, eggs, fruit.
 - (b) Of fruit, pastry, nuts.
 - (c) Of rice, milk, eggs.
 - (d) Make others.

(See articles on ICE, SALT, STARCH, FRUIT, RICE.)

k. Drinks.

- (1) Cocoa, water, coffee, tea, chocolate, milk, sassafras, etc.
 - (a) Composition and active principle of each.
 - (b) How best to prepare.
 - (c) How cared for to retain strength and aroma.
 - (d) Effects of drinking.
- (2) Juices of fruits.
 - (a) Kinds.

Sweet, how prepared at fruit-canning time.

Fermented, or wines, ciders, etc.

Distilled or other liquors, such as brandies or cordials.
 - (b) Uses.

For nourishment.

As stimulants.

To carry other substances.

Value in sickness.

- (3) Plant extracts, such as peppermint cordial.

(Read what is said under CHOCOLATE, COCOA, TEA, COFFEE, PEPPERMINT, PULQUE, BRANDY, WINE, CIDER.)

III. SELECTION OF WHAT TO BUY.

1. Plan meals for a day or a week.
2. Make your choice depend on :
 - a. Season.
 - b. Condition of the market.
 - c. Cost of a particular food ; of a substitute.

IV. BUYING.

1. Relative cost of large and small amounts.

2. Relative cost of cash and time purchases.
3. Relative value of personal and telephone purchases.
4. Working of pure food laws.
5. Check up bills and keep accounts. Compare with estimates.
6. Watch condition of foods as to freshness and cleanliness.
7. Give attention to care of supplies after bringing them home.

V. PREPARATION OF MEALS.

1. The order of preparation is dependent on:
 - a. Time required for cooking.
 - b. Time required for cooling or freezing.
2. For cooking, plan to have the materials ready when required.
3. Study how to save labor, time, and fuel.

VI. SERVING.

1. Have dining-room swept, dusted, ventilated, and attractive long before mealtime.
2. In arranging the table:
 - a. Use necessary things, no more.
 - b. Make a choice of linen, and select appropriate china and glassware.
 - c. Study arrangement with view to:
 - (1) Comfort.
 - (2) Pleasing appearance.
 - (3) Ease of serving.
 - (4) Meals to be served.
 - (5) The guests, if any.
3. Order in serving.
 - a. If in courses, plan for rapid, quiet removal of each course.
 - b. Before serving dessert, remove all food served before, and dishes in which eaten.
4. Importance of order, quiet, and good humor at mealtime.
5. Qualities of good hostess should be carefully studied.
6. Qualities of good guests, and their relations to each other, require forethought.

The thoughtful reader will find many articles in the body of this work other than those cited as "References." These lists are not intended to be exhaustive. They will suggest new facts, new lines of thought, special methods, new uses for food, new ways of preparing food, etc. Many domestic economies which old and young need to consider, in view of the increased cost of living, are hinted at or made clear.

In the digestion of food one should consider not alone the value of the article, but of proper condition, cleanliness, attractiveness in appearance, pleasant surroundings and cordial personal relations. All through these articles on *Home Economics* the aim has been to be helpful by outline and by concrete presentation. This will aid every reader to get the most possible out of the volumes as a whole.

DOMESTIC ART AS APPLIED TO CLOTHING

I. PURPOSES.

1. Adornment.
 2. Protection.
 3. For the sake of modesty.
- (See articles on CLOTHING and ARMOR.)

II. EVOLUTION IN STYLES AND MATERIALS USED.

1. Primitive, mostly skins of wild animals.
2. Ancient according to locality (toga, chiton, sandals, cap, etc.)

3. Medieval—Usually made of cotton or woolen goods.
4. Modern—Styles change rapidly and vary with the country.
(See articles on GREECE, ROME, BLOOMER, LACE, EMBROIDERY, etc.).

III. KINDS.

1. As to purpose.
 - a. Underclothing, usually for protection.
 - b. Outer garments, usually for ornament.
2. As to occasion.
 - a. Business, marked by simplicity.
 - b. School, designed for economy and adaptability.
 - c. House, for ease.
 - d. For street, shopping, visiting, etc.
 - e. Reception, entertainment, etc., for display.
3. As to material.
 - a. Animal, generally woolen, skins, buttons, etc.
 - b. Vegetable, cotton, or other fiber; paper, etc.
 - c. Mineral, generally jewelry, worn for ornament.
4. As to use.
 - a. Suits, dresses, wraps, etc.
 - b. Millinery.
 - c. Laces.
 - d. Embroidery.
 - e. Hats, caps, etc.
 - f. Boots, shoes, sandals, etc.
 - g. Hose.
 - h. Gloves, cloaks, etc.

IV. INVENTIONS FOR MAKING CLOTHING AND THEIR INFLUENCE ON HOME LIFE

1. Spinning wheel: its invention; its purpose; its effect.
2. Loom: has added to number, variety, and uses of goods.
3. Sewing machine: has had much to do with patterns, styles, etc.
4. Tissue paper pattern: has been of great service to designers, cutters, and home-workers.

(See articles on SPINNING, WEAVING, HARGREAVES, ARKWRIGHT, SEWING MACHINE, PAPER, FLANDERS.)

V. MODERN METHODS OF MANUFACTURE.

Centers for different fabrics. (See articles on different cities and note how manufactures have built them up.)

(See articles on ATLANTA, CHARLOTTE, N. C.; CLEVELAND, LOWELL, LYNN, PROVIDENCE, QUINCY, ILL.; WORCESTER.)

VI. FIBROUS CLOTHING.

1. Its composition and structure.
2. Collect samples of raw material and study the structure under the microscope.
3. Collect samples of cloth made from this material.
 - a. Test for cotton or linen.
 - b. Test for wool or silk.
 - c. Comparative strength of warp and woof of each.
 - d. Study mordants and bleaches and their effect on goods.
4. Compare different fabrics to ascertain:
 - a. Heat conduction.
 - b. Absorptive qualities.
 - c. Fitness for different purposes.

(See articles on FIBER, FIBER PLANTS, CALICO, PINEAPPLE FIBER, SILK, FRANCE, BLEACHING, FLAX, COLOR, MICROSCOPE, etc.)

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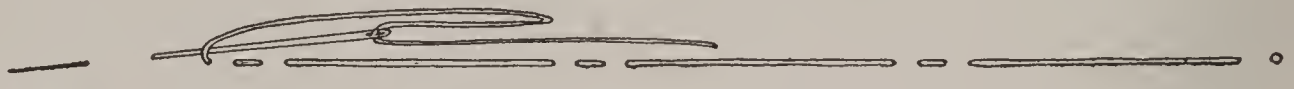
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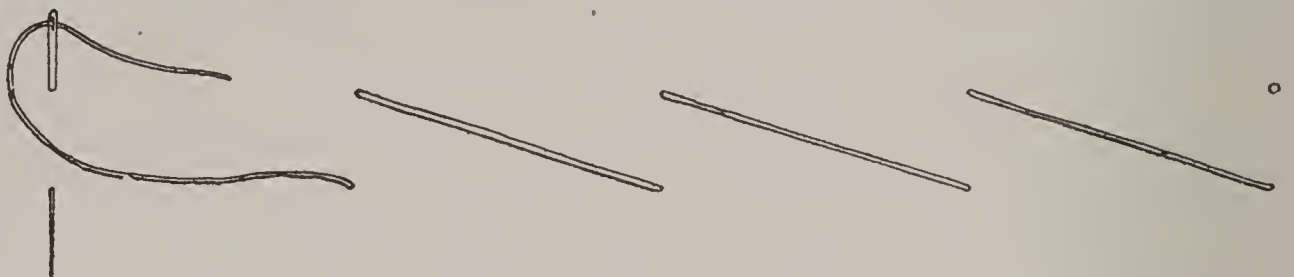
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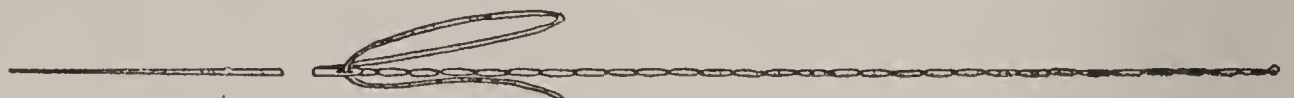
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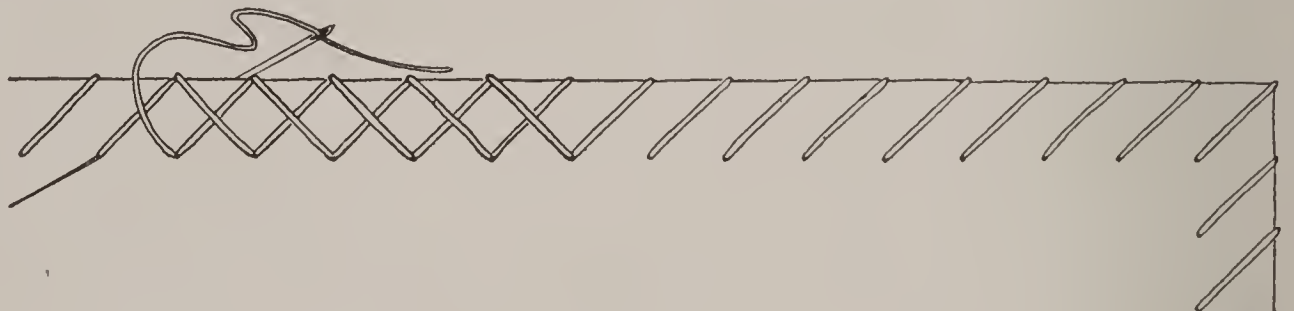
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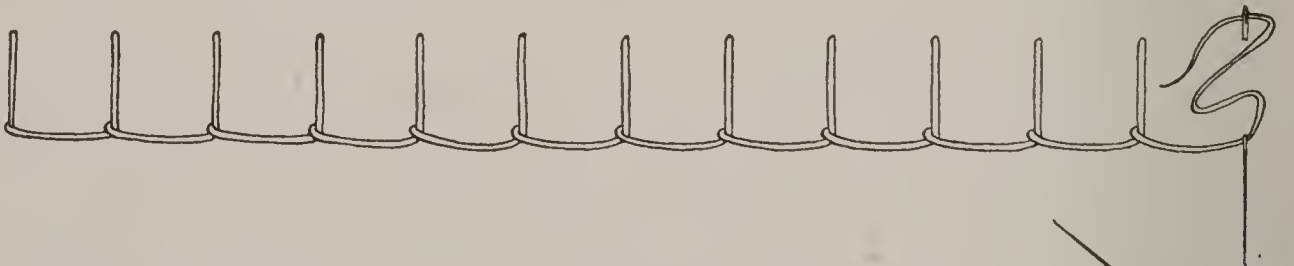
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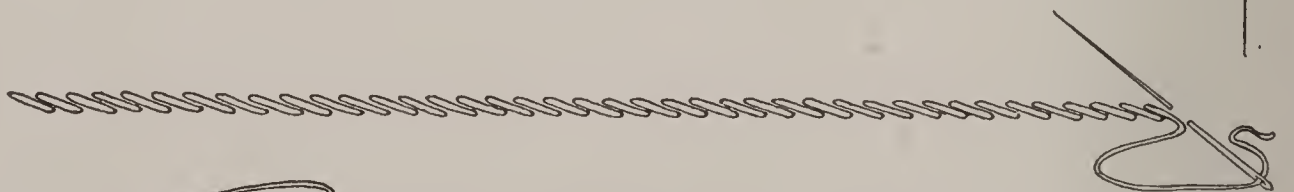
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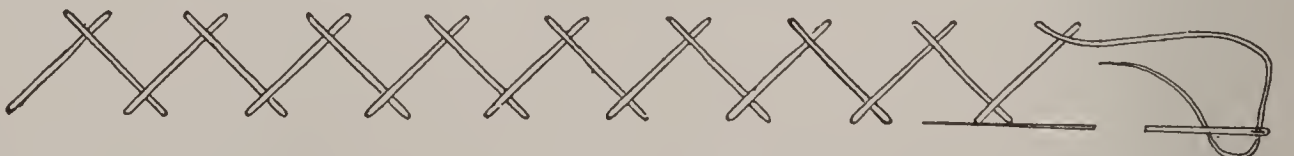
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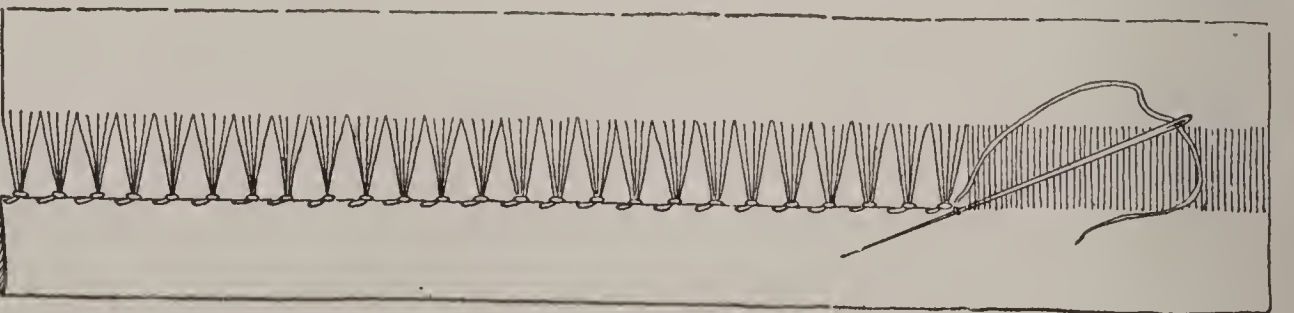
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12



13



VII. CLOTHING NOT FIBROUS.

1. Leather (doeskin, chamois, buckskin, sole leather, uppers, etc.).
2. Fur. How does fur differ from leather? Its uses?
3. Rubber (raincoats, rubber shoes, etc.). How made?

(See articles on TANNING, LEATHER, FUR, DOESKIN, CHAMOIS, BUCKSKIN, RUBBER, MACKINTOSH, MOCCASIN, BOOTS AND SHOES.)

VIII. CLOTHING OF UNUSUAL FIBERS.

1. Cocoon. From what part of the plant is clothing made?
2. Pineapple. How made? Where made? Usefulness?

IX. RELATION OF CLOTHING TO HEALTH.

1. Amount required.
2. Effect of undue pressure.
3. Compare value to health of loose and close weave; porous and non-porous cloth; of woolen, cotton, and silk.

X. SEWING.

1. Its history and development.
 - a. The tailor bird.
 - b. Primitive (lake-dwellers, Indians, etc.).
 - c. Modern. Forms of needle and thread. What led to the invention of the sewing machine?
2. Equipment.
 - a. For hand sewing: scissors, thimble, needle, tape measure, emery bag.
 - b. For machine sewing: foot machine or belt machine; experience; keeping parts in repair; oiling and cleaning.
3. Stitching.

Kinds. Running stitches are small, even stitches taken always straight ahead, the thread showing as much on the upper side of the goods as on the under. This is used in running straight seams.

Basting stitches are made in the same way as running stitches, except that the stitches are twice as long. In basting a seam that is to be fitted, use No. 2; for long seams where no strain is to come, No. 3 stitch is best; with wiry goods use No. 4 stitch, as the alternate long and short stitches hold best. Tacking is a modified form of basting that is used to hold together goods and lining. In this the needle is pointed toward the worker, as shown in No. 4.

The Back Stitch is used to make sewing very secure. Take a small stitch as in running, bring the needle out of the cloth, pull the thread close, put the needle down in the same place as before, bringing it up twice the length of the stitch. This gives even length stitches, with no spaces between. The halfback is made by going back only half of the length of the stitch. A combination is sometimes used by making three running stitches, going back one, etc. In running seams by hand this combination is preferred.

Overcasting is used as an edge finish and is made by putting the needle through from the under side, bringing it out on top, casting the thread each time over the edge, and making each stitch a little to the right. Reversing the process, bringing the needle up in the same place, but at the left instead of the right, gives the double overcast, as is shown in illustration No. 8.

A loop stitch is used as an edge finish by placing stitches at regular intervals, making the length of the stitch equal to the distance between. Buttonholes are worked by using this stitch, worked close together and from right to left.

Outline stitch is made by taking a long stitch on the upper surface, with short stitch on the under side, bringing the needle up at half the length of the long stitch,

repeating the long stitch, etc. This is very useful in making simple outlines for hand decorations, instead of expensive trimming.

Chain stitch is very useful in darning and outlining. It is made with the needle pointing toward the worker. Before the needle is drawn through the cloth, the thread is held down by the thumb of the left hand. By pulling the needle through a loop is formed. The next stitch is taken by putting the needle down where it was brought up in the last stitch.

Cat stitch is used in laying open seams of soft, thick goods that do not ravel, as flannel. No. 12 shows the process. Hold needle toward you, taking short stitches of even length, first on one side, then on the other. To assist in regularity, it may be well at first to put in bastings as guide lines.

Hemstitch is used in hemming, tucking, and finishing the edge of open drawn-work. After threads are drawn, turn down and baste the hem, bringing the folded edge to the lower edge of the open work. Take a small stitch in the hem at the middle of the group of threads to be drawn up. Hold the fastened end of the thread to the left with the left thumb, put the needle under the group of threads, bring it through over the thread, hold by left thumb and draw tight.

Materials. For the beginner, use small check gingham, in order to make it easy to regulate length of stitch. Use soft material and teach use of thimble to begin with. Insist upon this.

Simple things should be made as soon as possible, such as bags for sewing, simple sewing aprons, needle cases, caps, towels hemmed and others hemstitched, etc., taking care always that there is not enough work on any piece to make the pupil tired of it. Require measuring in cutting and sewing.

Mending. If the article to be mended is of stockinet or other knit fabric, the worn place should be darned. Thread a needle with fine thread and overcast the edge of the hole, drawing up so as to make the hole as small as possible without puckering. With fine yarn or darning cotton put in running stitches back and across the fabric, allowing the threads to run well out beyond the weakened portion. When the cross threads are in, chain stitch across them parallel with the stitches of the weaving. This gives a better appearance than the under and over darning, and is much more elastic.

If cloth is woven, it may be darned by using ravelings of the same goods, or with thread as nearly matched as possible in color and texture. Press on the under side with a warm iron, making the edges meet, or if no cloth has been torn out; if goods is light weight or net, then baste on the under side and darn the rent on the under side with a running stitch. Or if a hole is found, instead of chain stitch, use the under and over stitch, imitating the weave of the cloth. By using right colors and taking care, the darned place may be made unnoticeable.

If wash goods is to be mended, sew securely on the under side a piece of the same material—carefully matching the design or figure. Use the running stitch. On the right side, cut each corner diagonally and turn under the edge. Bring the needle up through the folded edge to hide the knot. Take up on the needle a couple of threads of the folded edge, draw the thread close, and in this way fasten down all the folded edges.

XI. SELECTION OF MATERIAL.

1. For a dress or suit.

- a. Consider durability, purpose, and cost.
- b. Estimate width and amount required.
- c. Allow for shrinking.
- d. Be sure to match the design carefully: (a) if adding to a garment now owned; (b) if to be worn with certain other garments.
- e. Examine the weave, color, and design.

2. Trimming requisites.
 - a. Fast color, good finish, strong edge.
 - b. See that the color harmonizes with the article to be trimmed.
 - c. Have the weave and quality match.
 - d. Compare the effectiveness of hand and machine-made trimming.
Select that which is suitable.
3. Selection of design.
 - a. Consider the intended use of material.
 - b. Study the artistic effect.
 - c. Determine if the design is in good style.
 - d. Give some thought to color combinations.
 - e. See how you can use different colors and qualities advantageously.
4. Cutting out.
 - a. Study economy.
 - b. Study modern pattern-making and how to use.
 - c. Learn how to lay your pattern according to the weave.
5. Making.
 - a. Examine garments and ascertain the points to be observed for good work.
 - b. Note the importance of pinning, basting, pressing, etc.
 - c. Study all kinds of seams, hems, bands, binding, facing, etc.
 - d. Learn about stitches and their applications.
6. For millinery.
 - a. Study materials used; also hats, bonnets, and other headgear in the finished state.
 - b. Artistic effects, harmony of color, and arrangement of material.
 - c. Watch a milliner design or make a hat, etc. Make one yourself.
7. Underclothing.
 - a. It is usually economy to buy this already made.
 - b. Should be adapted to health, the season, and the purse.
8. For gifts.
 - a. Select gift and design suitable to recipient.
 - b. Designing and making different objects yourself sometimes adds to their desirability.
 - c. Copy gifts seen in stores. Compare the cost.

(See articles on COLOR, ART, LACE, EMBROIDERY, and MILLINERY.)

XII. CARE OF CLOTHING.

1. New clothing.
 - a. Necessity for sanitary factories.
 - b. Air and sun for factory-made clothing.
 - c. Importance of dusting, pressing, suitable hangers, etc.
2. Worn clothing.
 - a. Value of airing garments before putting away.
 - b. Brush, press, fold, or hang, to preserve goods and shape.
 - c. Rents and holes should be mended at once.
 - d. How can you best prevent the ravages of clothes moths?
3. Laundering.
 - a. Necessity for frequent laundering of certain goods.
 - b. What preparation for the laundryman? For the home laundry?
 - c. Have you a regular place for soiled clothing?
 - d. Why darn and mend or remove stains before putting into a receptacle?
 - e. Study the effects of heat, acids, soaps, washing powders, etc., on fabrics and colors.

4. Cleaning.

- a. Study dry cleaning and other methods.
- b. When should certain fabrics be cleaned?
- c. Should you always attempt to clean garments yourself?

5. Pressing.

- a. Why necessary?
- b. Heat required for different fabrics.
- c. Where can it be done most advantageously?

6. Storing winter clothes.

- a. How avoid danger from moths, dust, etc.?
- b. Importance of having a place for everything.

(See articles on MOTH, CEDAR, LAUNDRY, SOAP, ACID, SEWING, FUR, and WOOL.)

XIII. COST OF CLOTHING.

1. See headings, "Design," "Relation to Health," "Selection of Material," etc.
2. Compare cost of entire personal outfit.
 - a. If ready made.
 - b. If tailor made.
 - c. If home made.
3. Lower cost by:
 - a. Buying in quantities.
 - b. Avoiding extremes in styles and fabrics.
 - c. Selecting a time for buying.
 - d. Selecting styles easily cared for.
 - e. Planning simple handwork for trimming.
 - f. Readjusting clothing already worn.
4. Compare the cost of clothing and of food.
5. Compare the cost of new designs with that of old and standard ones.
6. Keep a record of the actual cost of clothing.

XIV. LACES.

1. Kinds, according to manufacture, place made, use.
 - a. Why hand made is more desirable.
 - (1) Bobbin or pillow lace, its description and uses.
 - (2) Point lace, how made, where made, and how used.
 - b. Machine made: advantages, disadvantages.
2. Gain by a combination of the two kinds?
3. Read the history of lace making—both hand made and machine made.
4. Study the wages of the lace maker and home conditions.

(See articles on LACE, IRELAND, BELGIUM, and WAGES.)

XV. EMBROIDERY.

1. How distinguished from lace?
2. Make a study of its history and changes; also of its uses.
3. Materials used in making:
 - a. By the ancients.
 - b. Modern people.
4. Hand embroidery; by whom made; how made; how used.
5. Machine made: how distinguished from hand made; its history and use.
6. Study historic and other pictures in embroidery. Where seen? What is their purpose?

(See articles on EMBROIDERY, TAPESTRY, SEWING, etc.).

Note: Many of the articles referred to bear upon several topics. Much help will also be obtained by referring to the General Index and Special Indexes found in the last volume of the series.



SILK

1. Mulberry Twig with Silk-worms and Eggs.
2, 3, 4. Cocoon and Pupa.

5, 6. Male and Female Moths.
7. Cocoons on branch.
8. Reeling Fibre from Cocoons.

9. Unspun Silk.
10. Magnified Fibre.
11, 12, 13. Finished Products.

SILK

Silk Worm

Moth

- Description
- Male and female

Eggs

- Number, size
- Where deposited
- Time to hatch

Caterpillar

- Early appearance
- Development
- Food

Cocoon

- Attached where
- Glands, Spinnerets
- Length of thread

Chrysalis

- Hatching
- Time required
- Prevention

Manufacture

Steps

- Plunge in hot water
- Unwinding cocoon
- Reeling
- Washing
- Dyeing
- Twisting
- Spinning
- Weaving

Use of Waste**History and Development of Industry**

Its origin

- Introduction into Europe
- Attempts in America
- Where now produced
- Centers of manufacture

Artificial Silk

- Made from what
- Process
- Extent of Industry
- Value of product

Questions on Silk

Why does silk cost more than cotton?

Where does most of our raw silk come from?

What is "spun" silk?

What is the main food of silkworms?

How long a thread can be obtained from a single cocoon?

Why must they kill the chrysalis in cocoons intended as a source of silk?

How many cocoons yield a pound of raw silk?

How long does it take to spin a cocoon?

Is silk culture an industry of this country?

From what is artificial silk made?

How does it compare in quality and price with real silk?

What is the color of raw silk?

How many days elapse between the hatching of the silk worm and the spinning of the cocoon?

Is the fruit of the mulberry tree edible?

REDUCING THE COST—INCREASING THE HEALTH

INTRODUCTION

The high cost of living is no jest. It is a vital, stern reality which confronts every housewife today. The problem of how to keep out-go from exceeding income has well-nigh driven many housewives to the verge of despair. Others claim that "Jim's wages just go around and that's all." In such homes economy is a necessity; yet true economy is seldom understood.

It is no longer considered "stinginess," but rather a dignified science and art. Thrifty, right-thinking housewives practice economy with as much pride as the manager of one of the largest concerns in the country who said, "Not even a postage stamp is wasted."

The purpose of this department is to show what true economy is, and, by practical helps, show how it may be employed to increase the health, wealth and happiness of the home.

The thrifty French who are recognized the world over for their fine cooking, are equally famous for their keen economy. They have learned lessons which no other nation of the world has learned. It may be that their discoveries date far back into the centuries, but it is certain that they were greatly developed when in 1871 the nation was crushed by the Franco-Prussian War. Though defeated and impoverished almost overwhelmingly, Bismarck sought to reduce them still further by demanding a one thousand million dollar indemnity. Such an after-punishment had never been heard of in all the annals of history. The German armies occupied every important part of France wherewith to enforce peace and payment. Bismarck expected the army to remain for years, but it is a notable fact that within 18 months one-half of the army was removed, and at the end of 31 months the last of the \$1,000,000,000.00 had been paid. Scientists and historians alike give the credit for this almost unbelievable accomplishment to the skill and economy of the French housewives.

It is clear that what the French can do, any other nation can do. Instead of standing ninth among the great nations, in savings accounts per capita, America, with her wonderful resources should stand first. This department will effectively point the way for all who will follow it carefully.

Over 1000 meals are served in the home annually. If one can save 5 cents per meal on an average, it is no trivial matter. Ordinarily meals are selected haphazard, without any actual knowledge of nutritive values, which results in food becoming a much greater item of expense than necessary. Nourishing food, properly combined, is much cheaper and does immeasurably more good. Those who have learned how to do it, have reduced the cost of their living to what it would have been 20 years ago when 158 commodities were selling for 35% less money than they are today. Why shouldn't the nation as a whole know how that is done?

Then too, we are known as a nation of dyspeptics. This is because of improperly cooked food, harmful food combinations, and over-eating. Experts claim that our increased death rate is largely due to malnutrition and over-eating. Most people who over-eat, do so because of imperfectly balanced meals. The nutritive elements are either lacking or positively neutralize each other. In either case the appetite demands large bulk to make up for the lack of nourishment. This not only greatly increases the expense of the meal, but promotes indigestion and thus demoralizes physical energy and decreases earning capacity. Thus we have a three-fold loss. No family can afford, at any cost, to allow ignorance of such laws to continue.

The following outline is a brief summary of practical material to be found in this department. We do not claim it to be exhaustive; that would require several volumes. We do claim however, that it is sufficiently suggestive in tables, types of perfectly balanced meals, recipes, etc., etc., to be of vital importance and exceedingly helpful even to those of wide experience in this department of Domestic Economy.

WHAT EVERY HOUSEWIFE NEEDS TO KNOW IN THESE STRENUOUS DAYS

Food

1. How to select foods:
 - a. Meats
 - Beef, Veal
 - Pork, Ham, Bacon
 - Mutton, Lamb
 - Rabbits, Squirrels
 - Turkey, Chicken
 - Fish, Oysters
 - b. Vegetables
 - c. Eggs
2. Food Combining:
 - (a) What the body needs
 - (b) Feed elements
 - (c) Properly balanced meals
3. Methods of Cooking:
 - (a) Roasting (oven and pot)
 - (b) Broiling
 - (c) Boiling, simmering and steaming
 - (d) Stewing, braising
 - (e) Frying, "sauteing"
4. Reducing the Meat Bill:
 - (a) How to tell good meat
 - (b) Cuts of meat
 - (c) Use of economical cuts
 - What they are
 - How to cook tough cuts to the best advantage
 - Recipes
 - (d) Making a little meat go a long way
 - (e) Meat substitutes
5. Use of "Trimmings", fat and drippings
6. Use of Left-overs:
 - (a) Stale bread
 - (b) Sour milk
 - (c) Meats
 - (d) Miscellaneous
 - Vegetables
 - Cereal
 - Orange peel
 - Hard-boiled eggs
 - (e) Soups and gravies
7. Valuable helps in economy:
 - (a) Rice
 - (b) Bread

HOW TO SELECT FOODS

MEATS

Beef and Veal

Beef. Good beef is a clear, bright red, of a close, even grain and well mixed with creamy fat; the suet is firm and pure white. Heifer meat is small in the bone and lighter in color than ox beef, which is the sweetest, juiciest and most economical.

Veal. When veal, the young of beef, is at its best, it is almost white in color, the fat being of a pinkish hue, the bones hard and of a good size. The meat should be close and firm, although the veal from a calf raised in a pasture will be coarser in grain and redder in color. The milk-fed is better. Reject any piece when the suet has the faintest odor, or is soft and flabby, or has greenish or yellowish spots about it. It is not fit to eat. Meat that takes on a pinkish color has passed the age of veal and is simply beef too young for the market. It is neither wholesome nor of good flavor. The kidneys should be large and well covered with fat; the sweetbreads plump, firm, and of an inviting color; the liver a clear red without spots or gristle.

Pork, Ham and Bacon

Pork, of a good quality, is a delicate pink and fine grained. The fat should be pinky white but not present in large quantities. Too much care cannot be taken in selecting pork for unless it is *absolutely first class* and *well cooked*, it is unwholesome and harmful. Pork must not be kept on hand long before cooking. It is quick to taint. *Tainted meat of any sort is dangerous.* If small kernels exist in the fat, the pork is unfit to eat. It is diseased, being known as "measly," a condition not uncommon in hogs and due to a parasitic worm, trichina.

Ham. The best hams are the small, short, tapering ones, weighing from eight to sixteen pounds. Select one with a thin skin, the fat firm. To tell if the ham is good, run a clean knife in at the knuckle and at the center. If sweet and good, the knife will come out clean and have no repulsive odor. There is economy in buying a whole ham. When cooked, it keeps well and one does not tire of it as readily as of other meats.

Bacon, for table use, whether salted and dried, or smoked, should be good and lean. It is no economy to pay *thirty to forty cents per pound for bacon fat*. The fat should be white and firm, the lean fine-grained and light in color, the rind thin. If the lean be dark and coarse, it probably is old and over salted besides. No yellow or black marks should be in the fat, if the meat is to be sweet and savory.

Mutton and Lamb

Mutton. Sheep between four and six years old yield the best mutton, which, in perfection, is a clear dark red with a medium amount of firm white fat. The breast bones are white. If the mutton, when pressed by the finger, rises quickly, it is good. Any greenish tints about either fat or lean shows that the meat has been kept so long that it has begun to decay.

Lamb. Spring lamb is between six weeks and six months old. The bones should be small, the meat pink and fine grained, the fat white. The younger a sheep the less white are the bones, those less than a year old being entirely red.

Rabbits and Squirrels

Rabbits and Squirrels, when fresh, are stiff and red. If flexible and the flesh black or even dark, they are stale. If old, the ears are tough and dry, the cleft in the upper lip is broad and the claws rough and blunt.

Turkey and Chicken

Turkey. A young, plump, firm, white fleshed, hen turkey is the one to choose, if one wants a sweet, juicy, tender bird. It is preferable to all others and should be hung for at least a week before cooking. Many plump turkeys are old over-fattened ones. Too much fat will mar the flavor of the meat as well as cause indigestion. The fat forms under the skin and an abundance of it makes the turkey soft and spongy to the touch. Here are four specific tests by which to tell whether a turkey is young:

First, the *breast bone* will be *flexible*, if the bird is *young*.

Second, an abundance of *pin feathers* bespeaks youth.

Third, *long coarse hairs on the neck* are certain signs of *old age*; the bird is fit for nothing but the stew pan or soup pot.

Fourth, *the skin* of the young turkey is fine in texture and will break easily under the wing. The legs will be smooth and dark.

Chicken. Much that holds good in choosing a turkey may be used as a guide in selecting a chicken. Chickens are best when they have just reached full growth, unless spring chicken is desired. The comb should be full, bright colored and smooth. The toes should break easily, when turned back. Chickens should be cooked soon after killing as they spoil easily. The best ones have yellow legs.

Fish and Oysters

Fish. Doctor C. F. Langworthy, United States Food Expert, says: "From the standpoint of both nutritive value and palatability fish is an important food product and equal to beef as a source of energy." Friday is the world's "Fish Day", and, in the homes where Lent is observed, fish furnishes the most frequent substitute for meat. Fish is particularly desirable during the spring months but should appear on our tables during the whole year much oftener than it does. Good fish is not difficult to obtain, if one has a little knowledge of what fish are "in season." As this depends upon where one lives details cannot be given here. Halibut and cod are seasonable all through the year. There are certain tests, which *ordinarily* hold good, namely, gills must be a bright red, the eyes bright and prominent, the flesh firm. However, fish *may appear* good and be just the opposite. The *best guide* is an *experienced, trusty dealer*.

Oysters, are the best known and the most popular of the shell fish and are an important article of food from September till May. In most localities they are no more costly than meats and a few oysters will give a relish to many made-over dishes, or supply a piquant addition to dishes having little flavor of their own. There is an endless variety of ways in which they may be cooked. There has been much ado in the past about the contamination in oyster beds and the difficulty in securing bulk oysters which were not bleached and tasteless. Both problems have been satisfactorily solved. The first one by the state and government authorities, the second by the invention of an oyster-carrier which transports firm, clean, delicious oysters into every section of the land.

Vegetables

Vegetables, which are "in season" should be chosen. They are cheaper, taste better and are better for the body. Summer vegetables cannot be kept as long before cooking as the winter ones. Good fresh vegetables are young and tender; beans, if fresh, are firm and will snap easily between the fingers. Old, stringy vegetables are not worth carrying home. Crispness may be restored, to withered or faded ones that are not too old, by soaking in cold water. Onions become strong, if allowed to sprout. Keep them in a cool, dry place. Peel potatoes very thin as the most nutritious part lies next to the skin.

Eggs

Eggs, one of our most important foods, are highly nutritious, being composed of water, albumen, fat and mineral salts; they only lack starch to make them a perfect food. Mixed with other foods they make valuable meat substitutes. Here are two reliable methods for testing eggs: (1) Fresh, newly laid eggs have rough shells; those that are doubtful, smooth, shiny shells. (2) Fill a glass two thirds full of water, put one egg in at a time. If the egg lies flat on the bottom of the glass, it is good. The staler the egg, the closer it will come to the top of the water. An egg that will float is a little *more* than doubtful. Throw it away.

FOOD COMBINING

What the body needs. To combine foods intelligently it is absolutely essential to know what the body needs. We eat to satisfy hunger and thirst, to maintain life and to promote growth. Nature supplies these instincts in both the animal and plant world. Old Mother Earth allows each plant to take from her store-house just the food the plant needs to perform its mission in life. The food required to best develop a clover blossom is not that upon which her sturdy little friend, Mr. Grain of Corn, dines. Plants require the same general substances but in different proportion. For instance, it is well known that cotton and tobacco are so hoggish that they "eat up every thing in sight" and other plants in this same soil would die of starvation unless the necessary food is replaced. Likewise, our bodies require the same *elements* of food but in different amounts. The man who earns his living by brawn must have food that will *make* brawn; he who makes his living by brain, must have food to make *brain*! At the same time every organ of the body must be provided with the food which will repair and build the individual parts which are constantly being worn out. Unless they are kept in good repair, the parts neglected will cease to work and Disease and Death creep in.

Food Elements. In order to know what foods will make brain or brawn, the housewife must know the make-up of foods in general. This is important. A highly technical knowledge is not necessary. The following simple chart gives ample information. Consult this chart when planning meals. (The lesson on Food in the body of this work is both interesting and helpful.)

FOOD CHART

Elements of Food	What They Do	Chief Foods in Which These Elements Predominate.
Proteids.....	Repair, promote growth, build muscle, give strength, make bone and blood.	Milk, lean meat, eggs, cheese, beans, nuts, fish, gluten of wheat and other cereals.
Fats.....	Supply heat, form the fatty tissues of the body.	Butter, cream, olive oil, fat meat.
Carbohydrates... (Starches and Sugars)	Give heat and energy.	Sugars, rice, hominy, fruits, flour, bread, potatoes, corn, peas, turnips, beets.
Mineral Matter..	Purifies the blood, aids digestion, cleanses the system, forms bone.	Salt, apples, t o m a t o e s, rhubarb, grapes, oranges, grapefruit, celery, spinach, parsley, onions, greens, lettuce, olives, pimentos, radishes, cress.

Properly Balanced Meals. Appetite and taste are controlling factors in the choice of foods, but perfectly balanced meals must do three things, viz.:

1. Must not contain too much of *one* food element;
2. Must provide due nourishment for *all parts* of the body;

3. Must appeal to the eye—*enjoyable* as well as nutritious.

When food combinations meet these requirements, the meal is properly balanced. It will not only be enjoyable and healthful but economical for it is cheaper to feed the body right than to pay doctor bills; besides, the comfort and earning capacity of a properly fed individual is vastly greater than that of one improperly fed.

An excellent table, which will prove a time saver, is given here. Select one dish from each group, choosing your main dish first. The list is not exhaustive but experience will soon enable you to enlarge the list by suggesting combinations both original and correct.

PERFECTLY BALANCED MENUS

Soup	Main Dish	Starchy Food	Watery Vegetable	Salad	Dessert
Cream of asparagus Onion Carrot Cucumber	Sirloin steak Hamburger " Porterhouse steak Round steak	Sweet potatoes Corn Parsnips Eggplant	Beets Tomatoes Cauliflower Squash	Water cress Cold slaw Lettuce Orange	Cocoanut custard Prunes stewed apricots Tapioca pudding
Amber Bouillon Consomme Julienne	Roast tenderloin Pork chops Ham Spare ribs	Irish potatoes Hominy Rice String beans	Onions Cabbage Greens Spinach	Waldorf Lettuce Tomato Beet	Ice cream Fresh fruit Pineapple ice Gelatin
Vegetable Tomato Pepper pot Cream of cauliflower	Leg of mutton Lamb chops Lamb stew Boiled mutton	Irish potatoes Parsnips Rice Hominy	Brussels sprouts Onions Asparagus Mushrooms	Combination Celery and apple Mint Cucumber	Apple dumplings Plum pudding Bread pudding Baked bananas
Ox-tail Cream of lettuce Cream of cucumber Cream of asparagus	Roast veal Veal cutlets Veal chops Veal loaf	Stewed corn Baked sweet potatoes Green beans Egg plant	Fried artichokes Baked tomatoes Stuffed peppers Turnips	Onion Cauliflower Mexican Cabbage	Cottage pudding Strawberry shortcake Vanilla ice cream Fruit jelly
Barley Green pea Clam bouillon Vermicelli	Roast chicken Fried chicken Chicken fricassee Chicken pie	Creamed potatoes Mashed potatoes Lima beans Cauliflower	Spinach Asparagus Buttered beets Mushrooms	Cucumber Tomato-mayonnaise Celery and apple Perfection	Crackers and cheese Sliced peaches Stuffed dates Ice cream and cake
Cream of celery Cream of onion Cream of cabbage Cream of pea	Fried fish Baked shad Broiled salmon Baked halibut	Baked potatoes Macaroni and cheese Browned sweet potatoes Green corn	Creamed spinach Creamed turnips Stuffed tomatoes Greens	Olives Currant jelly Lettuce Peppers	Cocoanut pudding Apple pie Lemon tartlets Apricot cream
Clam broth Oyster Iced bouillon Clear soup	Turkey roasted Duck roasted Goose roasted Squab stewed	Riced potatoes New potatoes Candied sweet potatoes Peas	Baked onions Baked squash Young carrots Tomatoes	Cress Orange Pears Grapefruit	Bavarian cream Rhubarb pie Cherries Tutti frutti ice cream
Cream of celery Scotch broth Potato Turnip	Baked beans Nut loaf Rice and cheese Vegetable pie	Fried egg plant Sweet potatoes Baked " Fr. fried "	Asparagus on toast Ladies cabbage Stewed tomatoes Fried cucumbers	Lettuce Cranberries Endive Cress	Gingerbread Baked quinces Cornstarch Fruit souffle

METHODS OF COOKING

Roasting, one of the oldest methods of cooking known, means to cook before an open fire. A steady glowing heat is needed. The bird or meat to be roasted must be seared quickly on all sides and then drawn further away from the fire. The object is to cook the meat in its own juices and have it well cooked but not burned. If cooked quickly clear through, the meat is in danger of being tough. Baste the meat about every ten minutes. This will help cook it and keep it juicy. Roasting is also done by placing in hot ashes or hot coals.

In an oven. What is commonly called roasting today is, in reality, *baking* in a closed oven. But, since baking is so universally considered roasting and modern kitchens are unfitted for roasting meat according to the original meaning of the word, it does not seem out of the way to call baking, when applied to meats—"roasting" and when applied to bread, pies, puddings, cakes and vegetables—to call it "baking". For an oven roast use a self-basting pan, if possible. Place the piece of meat in the bottom of your roasting pan, add half a teaspoonful of salt and half a cup of boiling water. Put it into a very hot oven. When the meat is well seared on the outside, put the lid on your pan and lower the heat. Allow twenty minutes per pound for meat to be well done. The baking of cakes, breads, etc., requires careful regulation of the fire. It is well to understand that:

- (a) A slow oven means 270 to 350 degrees (Fahrenheit).
- (b) A moderate oven means 350 to 400 degrees.
- (c) A quick oven means 400 to 480 degrees.

Pot roasting. This method is for small roasts or tough cuts, and is done on top of the stove. An iron pot or aluminum utensil is best for the purpose. The meat may be cooked in one piece or cut into several pieces. Each piece is seared on all sides in hot fat seasoned with onion or other preferred seasoning. Boiling water, enough to barely cover the meat, is added and the meat allowed to boil briskly for twenty minutes. The heat is lowered to the simmering point and kept there till done. Keep the pot covered tight. Salt and pepper are best added when meat is about half done, although authorities differ upon this point. The American Eagle could scarcely resist being tender and juicy if treated in this way.

Broiling, frequently called grilling, is the next nearest kin to roasting. Many claim that it is roasting, which, in its original meaning, is true. One side of the meat is exposed to intense heat and the other to the fresh air. A wire broiler, a gridiron with bars in it, or a double broiler can be used. The latter is preferable as the turning can be managed more easily. Steaks, chops, fish and young chickens are both delicious and wholesome when broiled. Larger pieces are unwieldy.

Grease and heat the utensil so that the meat may not stick and be torn. Do not broil meat that is less than an inch thick nor over two inches. Sear on one side and turn before juices ooze out at the other surface. Turn every ten seconds, using steak tongs or a knife and spoon. Piercing with a fork lets the juices escape. From ten to twenty minutes are required to cook a steak. Season with salt, pepper and small pieces of butter. Serve as soon as cooked, piping hot, on a hot platter. The whole meal should be prepared before the meat, in order that the meat may have undivided attention. A piece of meat that would require an hour to roast can be broiled in twenty minutes.

Boiling, and frying are the two methods of cooking most commonly used. Beware of getting into a rut. Variety is still "the spice of life." Boiling, simply means to put the food right into boiling hot liquid which, after a few minutes, is reduced to simmering. The pan for boiling should be just large enough to hold the food and the water sufficient only to cover it.

Simmering is not always understood. It is simply cooking gently *at the boiling point* or even below.

Steaming is a process deserving of wider use. It is the *best* and most *economical* way of cooking vegetables. In boiling, much of the juices escape into the water, which makes that method very wasteful if the liquid is thrown away. Whereas, in steaming, nothing is wasted.

Put the food to be steamed in a colander, wire holder, or regular steamer. Place it within a kettle of boiling water high enough to prevent the food from being touched by the water. Meats may be steamed admirably in a common boiler—tough meats, legs of mutton or ham especially. Use enough water to create a huge volume of steam. Cover well. As the water boils away, replace with more boiling water. Do not check the boiling. The steam will do the work to a nicety. Steamed meats are juicy and tender, watery vegetables made dryer, and starchy vegetables and puddings have an entirely different flavor when steamed.

Stewing, another economical method, differs slightly from boiling. It is done rapidly at first (in a *small* quantity of water) and then slowly for a long time—the exact time depends greatly upon what is being stewed. Meats need at least two hours.

Braising is neither baking nor boiling—but a bit of both. Food stewed and then baked in a quantity of liquid, is *braised*. The French are very partial to this method.

Frying is undoubtedly the most highly condemned form of cooking. It means, strictly speaking, to *submerge* in hot fat but whether little or much fat is used, it is known in America from coast to coast as “frying.” When less than enough fat to cover the food is used, the French call it “sauteing.” Frying rests under severe condemnation because, ordinarily, such quantities of unwholesome grease are absorbed by the food that, when cooked, it is not fit for the stomach of man or beast.

The fat most commonly used for frying is *lard*—the taste of which is repulsive, to say the least. Even when properly made it is unhealthful, in fact, positively deadly to many persons. All lard is open to doubt. It is a well-known fact that hundreds of hogs which die from cholera and other diseases are made to yield their portion of the lard which is shamelessly sold for home use.

Butter and olive oil are good but too expensive to be commendable for frying. Drippings cannot be used for all foods. In recent years there has arisen a class of economical lard substitutes which goes far toward redeeming the simple easy method of frying. Though masquerading under various trade names, they are all worthy of consideration, and each housekeeper is advised to experiment till the one is found which most nearly meets her needs.

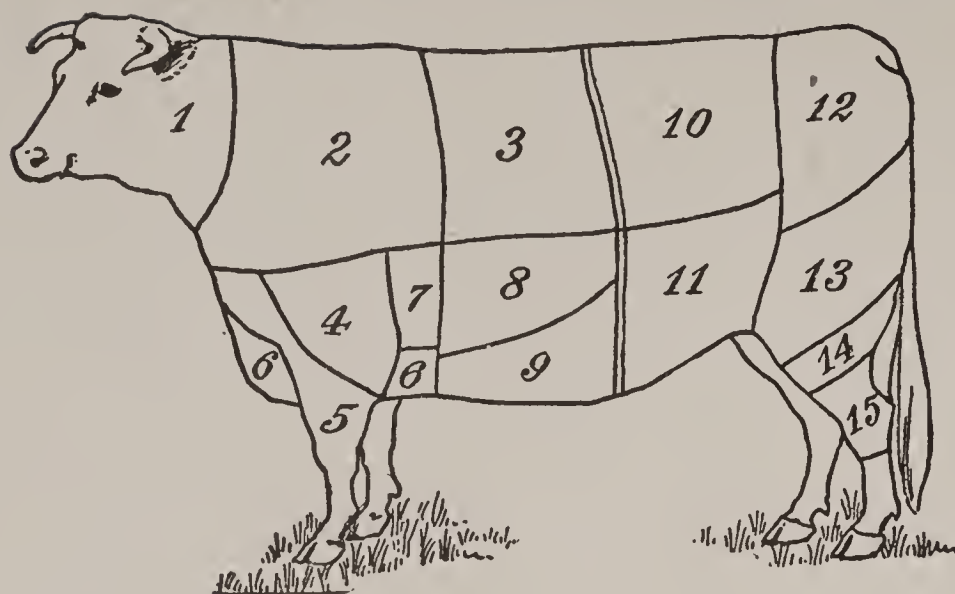
REDUCING THE MEAT BILL

The average meat bill, in the home of the workingman particularly, holds first place among the items of food expense. How to reduce the meat bill is a problem some housewives never solve save by doing without meat entirely. Total elimination of meat is unnecessary and not to be advocated in order to reduce the meat bill. It is necessary, though, for the housewife to have more than a “bowing acquaintance” with the different kinds of meat, and to know how to cook them properly and take care of the “trimmings” and left-overs. Deplorably *few* understand these essentials. In fact, there are many today, mothers of large families, unable to tell one cut of steak from another.

HOW TO TELL GOOD MEAT

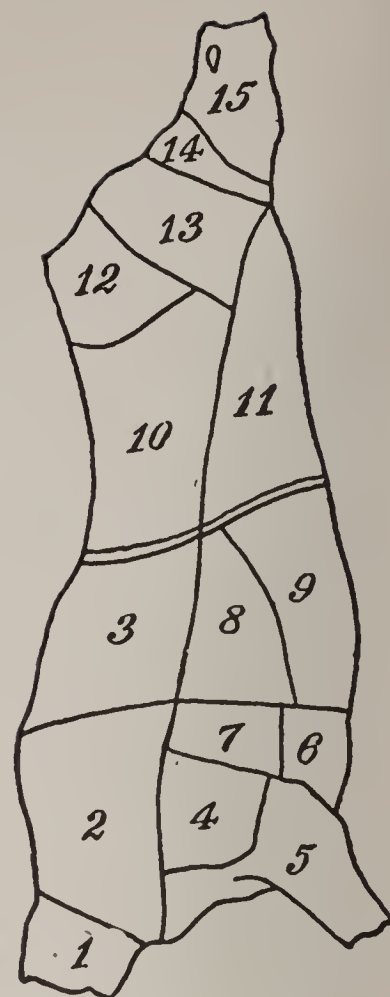
The careful purchaser will consider first its color and then the grain. Tenderness and nutritive value depend upon the age and condition of the animal. Often an inferior joint from a first-class creature being preferable to a more select cut from an inferior animal. Thus the folly of ordering meat by telephone, relying upon the butcher to send meat that is “fresh” and “tender,” is apparent. The efficient housewife will select her meat in person, if she wishes to get what she wants and really pays for.

1. Diagram of Cuts of Beef



FOREQUARTER

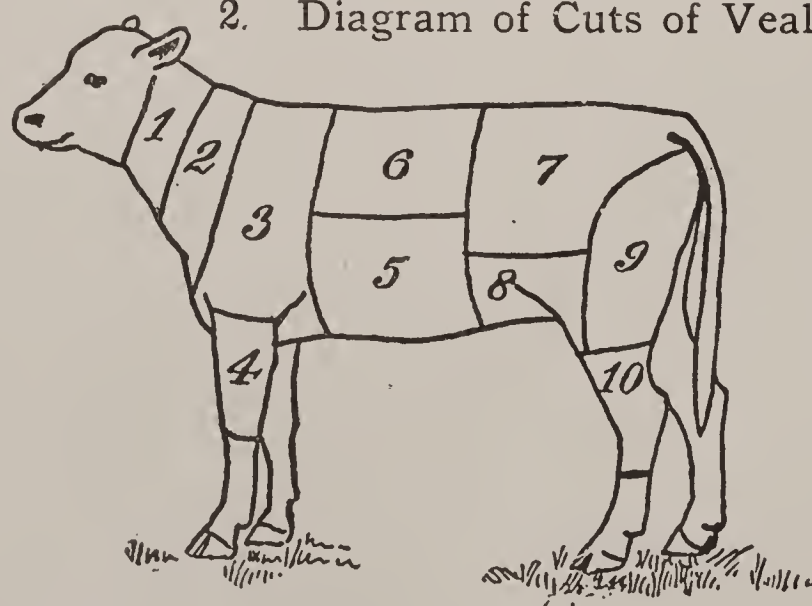
1. Neck, often with more of chuck than shown.
 2. Chuck, from which shoulder steak is cut.
 3. Ribs—for roasting.
 4. Shoulder clod—often cut without bone.
 5. Fore shank.
 6. Brisket
 7. Cross ribs
 8. Plate
 9. Navel
- } Often called, as a whole, plate.
Suitable for corning.



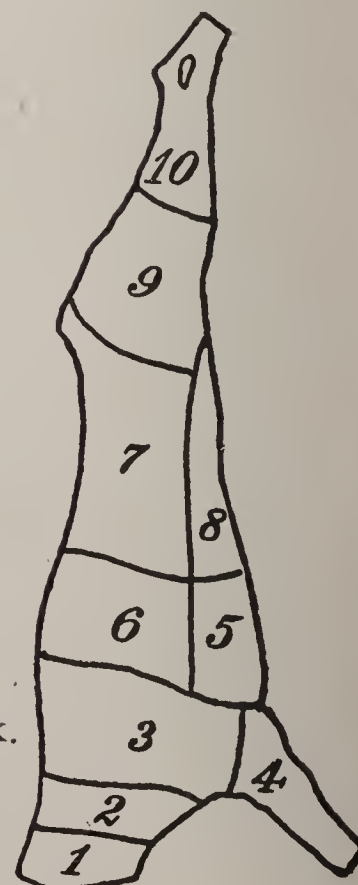
HINDQUARTER

10. Loin, with "short" steak and tenderloin, or porterhouse, in front and sirloin near hip.
11. Flank, the upper part yielding flank steak.
12. Rump, the front part being sold as rump steak.
13. Round, with inner or "top" round being more tender.
14. Second cut round.
15. Hind shank.

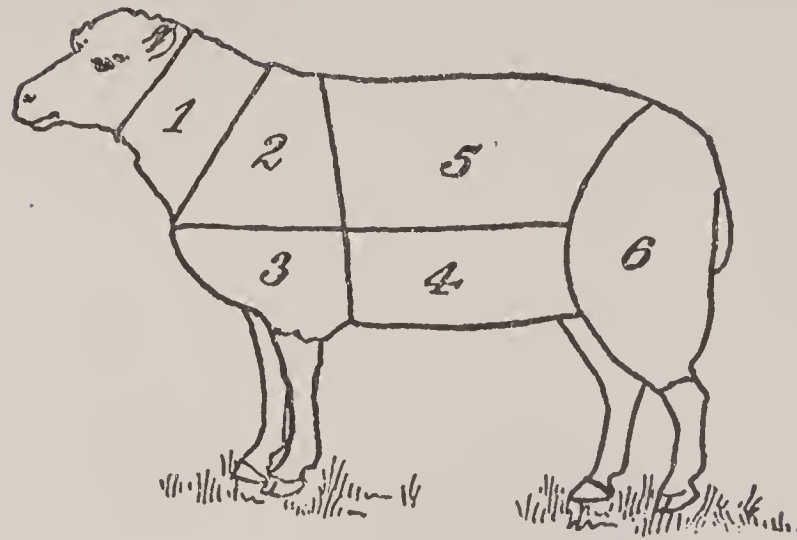
2. Diagram of Cuts of Veal



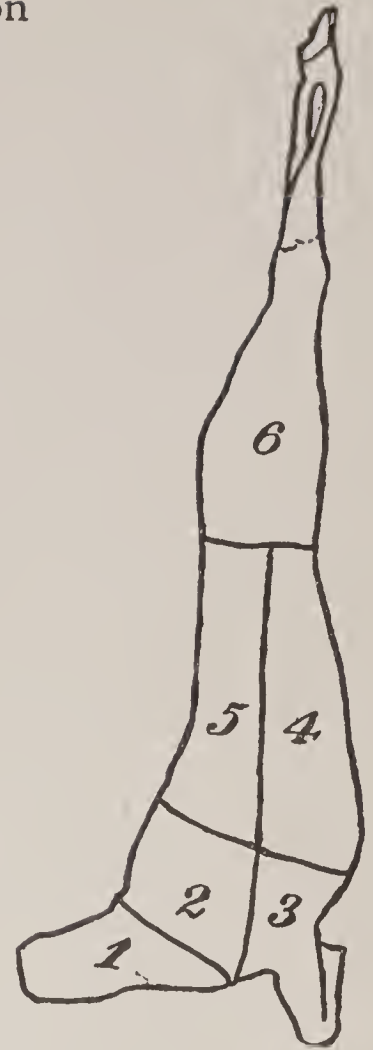
1. Neck, often included with chuck.
2. Chuck, sometimes with more of shoulder.
3. Shoulder.
4. Fore Shank.
5. Breast, corresponding to plate in beef.
6. Ribs.
7. Loin, yielding best veal steak.
8. Flank—stewing.
9. Leg—steak, or roasting.
10. Hind shank, which with fore shank, is often called, knuckle.



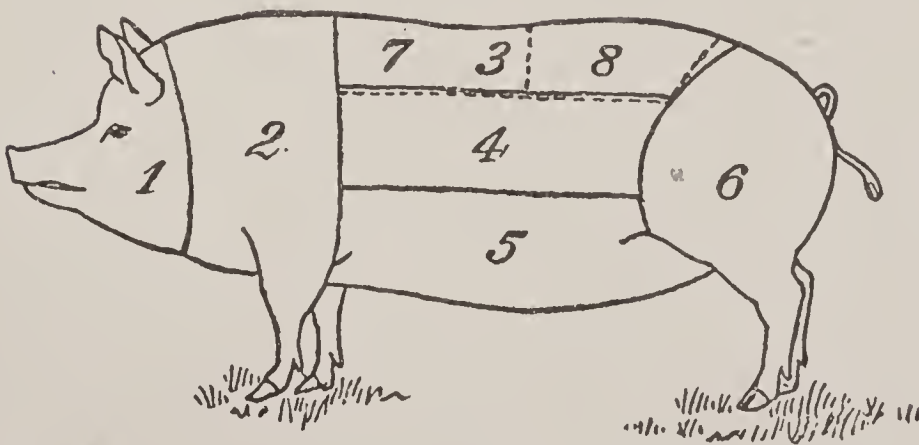
3. Diagram of Cuts of Lamb and Mutton



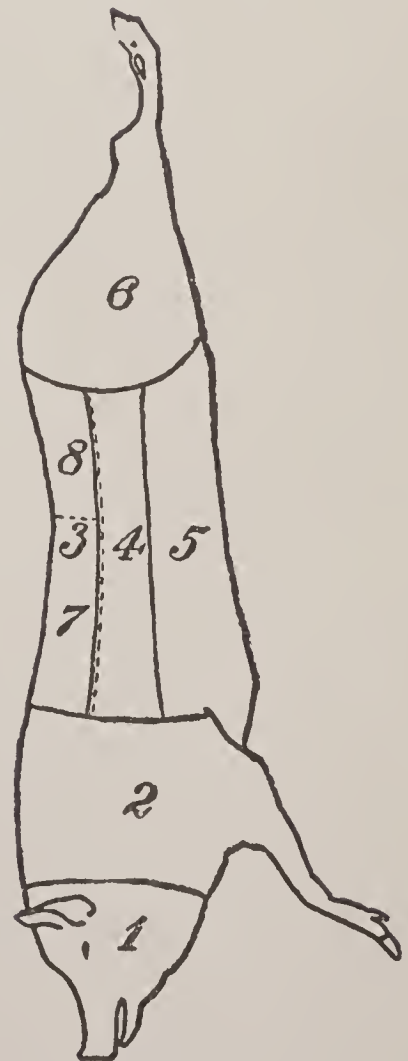
1. Neck, suitable for stewing.
2. Chuck, often with fore part of (5) cut into "chops."
3. Shoulder, a boiling piece.
4. Flank—stewing piece.
5. Loin.
6. Leg, a fine roast.



4. Diagram of Cuts of Pork



1. Head.
 2. Shoulder, usually cured.
 3. Back, consisting of Ribs and Loin.
 4. Middle cut, bacon.
 5. Belly, salted, pickled or made into sausage.
 6. Ham, cured.
 7. Ribs, roasting.
 8. Loin, roasting.
- } Outer part used for salting
and pickling.



CUTS OF MEAT

USE OF ECONOMICAL CUTS. *If meats cost a dollar a pound*, it is safe to say that even the poorest families would serve meat. Hence, as the price continues to rise, increased numbers are taking a keen interest in learning how to keep palatable and nourishing meats upon their tables at the lowest possible cost. While the inexpensive cuts are equally as nourishing as the expensive ones, the cheapest are not always the most economical. The reason for this is seen clearly in the following table prepared by the food experts of the U. S. Dep't of Agriculture.

Kind of Meat	Percentage		Kind of Meat	Percentage	
	of Bone or Waste in Cut	of Edible Material in Cut		of Bone or Waste in Cut	of Edible Material in Cut
BEEF			VEAL		
Brisket	23.3	76.7	Cutlets	3.4	96.6
Rump	19.0	81.0	Breast	24.5	75.5
Flank	5.5	94.5	MUTTON		
Chuck Rib	53.8	46.2	Leg	17.7	82.3
Porterhouse	12.7	87.3	Chops	14.8	85.2
Neck	31.2	68.8	Forequarter cut for stewing	21.2	78.8
Ribs	20.1	79.9	PORK		
Round	8.5	91.5	Loin	19.3	80.7
Shin	38.3	61.7	Salt Pork	8.1	91.9
Heart	5.9	94.1	Bacon	8.7	91.3
Tongue	26.5	73.5	Ham	12.2	87.8

WHAT THEY ARE. The amount of fat, gristle, bone, or general waste in a cut is apt to make the piece of meat at the lower price cost the most in the long run. The most economical cut is the one giving the most lean meat for the lowest cost—the greatest value for the money expended.

HOW TO COOK TOUGH CUTS. The high priced cuts come from the parts of the animal where there is little motion. The meat is tender, the fibers being short. The opposite is true of the cheaper cuts, which makes it necessary for them to be subjected to long, slow cooking. A skillful cook can do wonders with the poorest cut.

RECIPES FOR COOKING THE CHEAPER MEATS

1. Chuck Pot Roast with Tomatoes

- 3 lbs. beef—cut from neck—"chuck"
- 2 small onions
- 3 tablespoons melted fat
- 2 cups tomatoes
- 8 cups hot water
- Salt, pepper and flour.

Season meat with salt and pepper and roll lightly in flour. Let stand till flour is absorbed. Chop the onions fine and fry until brown in the fat. Remove the onions, put in meat and brown well on all sides. Add water, cover and boil rapidly for a few seconds. Add tomatoes, turn fire low and simmer for two hours. Remove meat, thicken the liquor and strain around meat. Serve at once.

2. Stuffed Flank Steak

- 1 thick flank steak. (Have butcher cut a pocket in it.)
- Stuff with following dressing:
- Mix
- 1 cup breadcrumbs
- 2 tablespoons drippings
- 1/2 tablespoon chopped onion
- 1 tablespoon chopped celery
- 1/2 teaspoon each of salt, pepper and red pepper
- 1/2 teaspoon sage or mixed herbs
- 1/2 cup boiling water, more or less accordingly if a moister or dryer dressing is desired
- 1 egg well beaten.

Sew up pocket, dredge steak well with flour, brown in four tablespoons hot fat.

Add one cup boiling water and one quart can tomatoes, juice and all, seasoned with salt and pepper, cover and bake slowly till meat is tender. Baste frequently. Do not strain tomatoes. If cooked in casserole, it may be served in same. Tomatoes may be omitted.

3. Savory Brisket of Beef

1½ lbs. brisket	½ teaspoon pepper
1 small onion sliced	Sauce
2 cups boiling water	1 small carrot diced
2 tablespoons drippings	1 stick of celery, cut fine
1 cup flour	1 bay leaf
1 teaspoon salt	Cold water to cover
	1 cup tomatoes strained

Cut meat into pieces about two inches square. Roll lightly in flour and lay aside till flour is absorbed by the meat juices. Fry the onion in the drippings until a golden brown. Into this drop the pieces of meat, browning each one well on all sides. Pour in the boiling water and let simmer for two hours. When about half done add salt and pepper.

In another sauce-pan boil the carrot, celery and bay leaf in water till vegetables are soft. Put through a fine sieve, and add to the tomatoes. Blend thoroughly. Take meat up on hot platter. Add sauce to the meat broth, heat to boiling-point and pour over meat or serve in separate dish. Chuck steak is equally as delicious treated in the same way.

4. Baked Beef Liver

1 lb. beef liver	2 tablespoonfuls bacon fat or drippings
1 small onion minced	3 tablespoonfuls flour
½ teaspoonful chopped parsley, minced	2 cups water

Pour boiling water over liver and drain. Remove the outer skin. Brown onion in the fat, add parsley. Dip liver in flour and fry a golden brown on both sides. Sprinkle with salt and pepper while frying. Transfer to roasting pan. Pour the water in frying pan and bring to a boil before pouring over liver. Bake in a moderate oven two hours. The liver will be tender and taste as good as calves' liver though *costing about half as much*.

5. Baked Hamburg Steak

2 lbs. round steak (the best comes from the lower part of the round, although any inexpensive lean meat may be used)	1 egg
1 cup breadcrumbs (putting stale bread through meat chopper is best method)	2 small onions or 1 teaspoon sage, if preferred
	4 slices bacon, or salt pork
	1 teaspoon salt, and ½ teaspoon pepper
	2 tablespoons flour

Grind onion and steak (or have butcher grind meat while you stand by to insure it being fresh as ground meat soon gets stale). Add the breadcrumbs, the egg well beaten and salt and pepper. Shape into a loaf, handling lightly and carefully. Grease a small dripping pan and put in the loaf, which has been well floured. Arrange the slices of bacon or pork across the top of loaf and bake in a hot oven for forty-five minutes. Baste every 15 minutes with one-fourth cup of hot water. Remove meat to hot platter. Add enough hot water to liquid remaining in pan to make one cup, make brown gravy, and pour around meat. The same recipe may be made into cakes and pan-fried.

6. Beef Heart Stuffed

Wash thoroughly inside and out, a beef heart and stuff with any desired forcemeat. A good one is made of minced pork, bread crumbs, and mixed herbs. Pack well, sew up in a clean cloth and boil two hours in water or stock. Allow the heart to cook, remove from liquid, weight it down well and leave till cold and well flattened. Cut lengthwise into thin slices and serve on lettuce leaves. Calves hearts are prepared in the same way.

7. Boned Leg of Mutton

Mutton and lamb chops are expensive but the leg can be purchased for a small price and if cooked by the following recipe, is delicious.

1 mutton leg	1 cup breadcrumbs
1 tomato sliced	2 tablespoons butter, crisco or drippings
1 small onion minced	1 tablespoon onion juice
1 stalk of celery	1 tablespoon parsley minced
1 tablespoon minced parsley or mint	$\frac{1}{4}$ teaspoon each of salt, pepper, paprika,
Bread dressing forcemeat	ground mace and sage

Have the bone removed carefully. Fill the cavity with the forcemeat. Sew up to keep the dressing from escaping. Prepare vegetables. Arrange them in the bottom of your roaster, laying mutton upon them. Dash over it 2 cups of boiling water, cover closely. Cook 20 minutes to the lb. Baste every half hour, the last time with butter, sprinkling with salt, pepper and flour. Remove the cover and brown. Make a gravy of the vegetables put through a colander and the liquid thickened with flour. Serve green peas or turnips with this dish.

8. Roast Lamb

The forequarter of lamb including the shoulder is cheaper than the hind-quarter and much more economical.

1 shoulder of lamb	Salt, pepper, flour
1 cup boiling water	Mint sauce

Put meat into roasting pan. Dash over it the boiling water, cover and bake, allowing fifteen minutes to the lb. Season with salt and pepper when half done and dredge with flour. When almost done baste with the gravy and ten minutes later with butter and lemon juice mixed together. Remove cover and brown. Lamb must be well done to be wholesome and of good flavor.

9. Breaded Veal Cutlets

$1\frac{1}{2}$ lbs. neck of veal	1 egg
$\frac{1}{4}$ teaspoon salt and pepper	Breadcrumbs

Cut the meat into thin slices. Salt and pepper each cutlet, dip in beaten egg then in fine breadcrumbs salted and peppered. Fry quickly and carefully in deep fat. Serve with tomato sauce, or butter and lemon juice or other piquant sauce. Accompany with spinach.

10. Fried Breakfast Bacon on Toast

$\frac{1}{2}$ lb. bacon	6 pieces buttered toast
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This is a simple, delicious dish quickly prepared and especially suitable for breakfast. Have the bacon cut thin (it cannot be cut too thin), and the rind removed before cooking unless "bacon curls" are desired. Heat the frying pan, lay in the slices of bacon and cook till clear, then turn them. Serve dry and hot upon toast. A

quicker and even better way of cooking is to lay the slices of bacon in deep hot bacon fat. It will require but a few moments to cook them "just right" and they are never greasy, but deliciously crisp.

11. Breaded Ham with Eggs

6 thick slices of cold boiled ham	Breadcrumbs, salt pepper
3 eggs	6 triangular pieces of toast

Season one beaten egg, dip ham into egg then in breadcrumbs and fry in deep bacon or pork fat. Brown well on both sides. Serve slices of cold boiled eggs on top of each piece of meat and garnish with toast points.

HOW TO MAKE A LITTLE MEAT GO A LONG WAY.

The best way to make a little meat go a long way is by combining it with less expensive foods. These dishes are not only inexpensive but palatable and nutritious, and in many instances combining *all* of the necessary food elements. They are time savers as well, one being able frequently to cook a whole meal in one kettle and serve it on one platter.

These recipes are meant to be suggestive only of the many combinations which are possible, not exhaustive.

I. Pigs in a Puddle

$\frac{1}{2}$ lb. lean pork, raw or cooked	$\frac{1}{2}$ teaspoon sage
1 medium sized onion	1 bay leaf
1 cup cooked rice	Salt, pepper and paprika to taste
1 medium sized head of cabbage	1 qt. tomatoes

Grind meat and onion. Add rice and sage, salt, pepper and paprika. Mix well. Trim off the outer unsightly leaves of the cabbage, pull the others apart and throw them into a pan of boiling salted water. Boil 5 minutes. Drain and cool. Wrap a tablespoon of the meat mixture in each leaf and fasten with a wooden toothpick. Lay the "pigs" in a shallow, greased pan, cover with tomatoes, (quart), well seasoned with salt and pepper and add bay leaf. Bake $\frac{3}{4}$ hour in a hot oven.

2. Bacon with Potatoes in the Half Shell

$\frac{1}{4}$ lb. bacon	6 medium sized potatoes
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Select flat potatoes as nearly uniform in size as possible and best quality bacon sliced *very* thin. Scrub potatoes well; dry and cut in half lengthwise. Lay in a shallow pan, covering the top of each half of potato with bacon strips and bake till done in a moderate oven. Serve on a pretty platter accompanied by the bacon drippings.

3. Apples Stuffed with Sausage Meat

1 cup sausage meat	6 large, firm, sour apples
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Core the apples and fill with the sausage meat. Place in a shallow pan containing $\frac{1}{2}$ cup hot water. Bake in a moderate oven one hour, basting frequently.

4. Beef Stew

2 lbs. chuck roast	1 onion
6 potatoes	1 qt. water
1 turnip	1 teaspoon salt
1 carrot	$\frac{1}{2}$ teaspoon pepper

Cut meat into small pieces and place in bottom of kettle. Dice vegetables and cover meat with them. Pour the water (cold) over all, and season. Cover closely. Bring slowly to the boiling point and allow to boil briskly for two or three minutes, then simmer for two hours.

5. Noodle Hoodles

1 lb. hamburg steak (ground)	$\frac{1}{2}$ cup milk
1 egg, well beaten	1 qt. beef broth
1 onion (small) minced	Salt, pepper
$\frac{1}{2}$ cup bread soaked in	Noodle dough

Make a dough just as for noodles. Roll thin and cut into four-inch squares. Mix other ingredients well and put a spoonful in each square of dough. Roll up, pinching dough together and drop into boiling beef broth. Boil ten minutes.

6. Chipped Beef with Hominy

$\frac{1}{4}$ lb. chipped beef	3 cups cold boiled hominy
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Make a white sauce into which drop the chipped beef well cut up. Season the hominy and fry a golden brown. Turn hominy out on a hot platter being careful that it retain a solid shape and pour the creamed chipped beef around the mound of hominy. Serve at once.

7. Chipped Beef with Eggs on Toast

$\frac{1}{8}$ lb. chipped beef	6 pieces of toast
6 eggs	

Cut the beef in squares. Poach the eggs in round tins. Heat the squares of beef and lay on squares of hot buttered toast. Place poached eggs on top of beef and serve at once.

8. Savory Eggs with Cauliflower Snow

1 large head of cauliflower	2 tablespoons melted butter or Crisco
6 eggs	6 squares buttered toast
4 tablespoons minced boiled ham	Salt and pepper to taste
2 tablespoons minced parsley	

Soak cauliflower in weak salt water for $\frac{1}{2}$ hour. Drain and break flowers apart; plunge into boiling salted water and boil till tender. Drain and set close to fire till quite dry. Press through a fruit press or potato ricer upon a hot platter, being careful to have it fall in center of platter where it must lie undisturbed. Dot with bits of butter. Surround the snow with savory eggs and serve at once very hot. A simple salad and desert are all that are needed to have a complete meal "fit for a king!"

Savory Eggs

Grease six small egg molds. Mix the ham, parsley and seasonings well together. Put an equal quantity in the molds, shaking it well around the sides. Break the eggs gently into the molds, being careful not to break the yolk, sprinkle with salt and pepper; cover and poach till well set. Have toast ready and turn one egg on each square of toast and serve.

Sufficient for six persons yet the cost is slight.

9. Irish Stew

- | | |
|--|--|
| 2 lbs. breast of mutton—cut in small pieces | 1 bay leaf |
| 6 medium sized potatoes—sliced | Salt, pepper and paprika to taste |
| 1 medium sized carrot—diced | 1 tablespoon parsley or $\frac{1}{2}$ teaspoon kitchen bouquet |
| 2 medium sized onions—sliced | 2 tablespoons drippings or Crisco |
| 2 small or 1 large tomato—cut in bits | Cold water |
| 1 stalk of celery, minced, or $\frac{1}{2}$ teaspoon celery salt | |

Brown onions in drippings, add the meat and brown each piece on all sides. Cover meat two inches deep with cold water. Add seasonings, cover close and stew till the meat is very tender, which will take two hours at least.

Meanwhile put potatoes, carrot, tomato, celery and parsley on to stew in cold water. Bring slowly to the boil, and boil for ten minutes. Drain, throwing away the water, and put vegetables in with the meat. Season to suit taste and cook gently till done.

Take up vegetables on a hot chop plate, and dish up the meat around the vegetables. Cover and set where it will keep hot. Let the liquid in the saucepan boil and while boiling rapidly, stir in a teaspoonful of cornstarch to thicken. Stir well, then add one cup of milk and one cup of cooked peas. Cook five minutes and pour over the vegetables and meat. Send at once to the table. This is an excellent dish when properly prepared and a good way to cook any of the cheaper cuts of mutton.

10. Bacon with Fried Apples

- | | |
|---------------------------------------|-----------------------|
| $\frac{1}{2}$ lb. first quality bacon | 3 tablespoonfuls milk |
| 3 tart apples of medium, uniform size | |

Fry bacon in deep hot bacon fat till lightly browned (if none is on hand, dry pan the bacon). It requires but a few moments. Take up at once before it burns. Have apples washed and sliced crosswise without peeling or coring. Dip in the milk and fry quickly in the fat left by bacon. If there is not enough bacon grease in pan to cover apples, add Crisco and when hot—*not smoking*—drop in the apples. When well browned, take up quickly, being careful that the apples are not broken. Sprinkle with sugar and arrange about the bacon. Serve at once with dry toast. This dish is excellent for breakfast or lunch in winter especially.

11. Settin' Hen's Nest

- | | |
|---|-----------------------------------|
| 1 cupful of macaroni or spaghetti | $\frac{1}{2}$ cupful bread crumbs |
| 1 cupful of minced cold meat | Salt, pepper, flour |
| 2 eggs well beaten | 2 qts. water |
| 1 tablespoonful minced nut meats
(almonds preferred) | 2 tablespoonfuls butter or Crisco |

Nest

Boil macaroni in 2 qts. of rapidly boiling salted water till tender. Drain and fry in hot butter or Crisco for five minutes. Season to taste. Pile on hot, flat plate in form of a nest. Tomato sauce may be poured over nest or around it or it may be omitted.

Eggs

Mix nut meats and one well beaten egg together. Heat through and set aside till cool; flour hands and shape mixture into egg shapes, roll in beaten eggs and bread-

crumbs and fry in deep hot fat. Heap the eggs in center of the nest and it is ready for the table. This is good to look at and good to eat.

12. Braised Pork Chops with Vegetables

6 pork chops	$\frac{1}{2}$ cupful each of chopped carrots,
2 cupfuls stock or hot water	onions, turnips, tomatoes and celery
2 tablespoonfuls drippings	Salt, pepper and flour

Fry a small onion in the hot drippings. Brown the chops in the same fat and then lay on top of the vegetables which have been spread over the bottom of a roasting pan. Pour over all the grease from the frying pan and the hot water or stock. Cover closely and cook for one hour in a moderate oven. The chops should then be turned, seasoned with salt and pepper and dusted with flour. Cook uncovered till brown on both sides, turning in fifteen minutes. The chops may be served on the bed of vegetables or, if liked, a sauce may be made by pressing the vegetables through a sieve, allowing it to boil up once and then pour over the chops. Mutton or lamb chops may be treated in the same way.

13. Chuck Beef and Lima Beans

1 lb. chuck beef	2 tablespoonfuls flour
1 pt. dried lima beans	2 cupfuls stewed tomatoes
3 small onions sliced	$1\frac{1}{2}$ teaspoonfuls salt
2 tablespoonfuls beef fat	Pepper and mace to taste

Soak the beans over night. Cook till done and drain. Cut beef into inch pieces. Brown with the onions in the fat, stir in the flour and seasonings. Alternate layers of the beans, meat and tomatoes in a casserole or buttered baking-dish. Barely cover with boiling water and cook for three hours in a slow oven, replenishing the water as it boils away to keep the mixture moist.

MEAT SUBSTITUTES

Cheese, nuts and eggs furnish the most valuable meat substitutes, supplying the necessary food elements at a greatly reduced cost. By their use the cost of living may, in many cases, be reduced to one-half of what it is now. Meat eaters are apt to eat too much meat. In that event, there is an excess of protein consumed which acts as a poison and affects the whole system, becoming a source of weakness rather than strength. Few women know how to make good meat substitutes. Yet, if a little time and careful attention be given to this subject, an astonishing variety of well-balanced meals can be provided for "half price."

Rice and Cheese

1 cupful rice	2 tablespoonfuls flour, blended with
4 qts. salted water	cold milk
2 cupfuls milk	1 cupful grated cheese
1 tablespoonful butter	Breadcrumbs

Cook rice in salted, boiling water for twenty minutes. Drain in colander (save water for soup stock). Make sauce of milk, butter and flour. Cook until smooth and creamy. On the bottom of a buttered baking-dish spread a layer of rice, layer of cheese and then layer of sauce. Alternate till dish is full. Sprinkle breadcrumbs over the top and bake for twenty minutes in a moderate oven.

Cheese and Macaroni Loaf

- | | |
|------------------------------------|-----------------------------|
| $\frac{1}{2}$ cupful macaroni | 1 teaspoonful onion |
| 1 cupful milk | 1 teaspoonful parsley |
| 1 cupful breadcrumbs | 1 teaspoonful salt |
| $\frac{1}{2}$ cupful grated cheese | 1 teaspoonful pepper |
| 3 eggs well beaten | 2 qts. boiling salted water |
| 1 tablespoonful butter | |

Throw the macaroni into the rapidly boiling water and cook for thirty minutes. Cook the onion and parsley in a separate pan. Mix all together and bake twenty minutes. Serve with tomato sauce.

Fried Cheese Balls

- | | |
|--------------------------------------|--------------------------------|
| 2 egg yolks slightly beaten | 2 tablespoonfuls flour |
| $1\frac{1}{2}$ cupfuls grated cheese | $\frac{1}{4}$ teaspoonful salt |
| $\frac{2}{3}$ cupfuls milk | Paprika or pepper to taste |
| 1 tablespoonful butter (heaping) | Breadcrumbs |

Make a thick sauce of the butter, flour, milk, salt and pepper. Stir into it the eggs and cheese. Mix well. Remove from the fire as soon as the cheese begins to soften. Turn into a shallow, well-buttered pan. Shape into balls, when cold, roll in breadcrumbs and fry in smoking hot fat.

Pimento and Cheese Roast

- | | |
|-----------------------|-------------------------------|
| 3 pimentos | 2 cupfuls lima beans (cooked) |
| 4 ounces cream cheese | Breadcrumbs |

Put pimentos, cheese and beans through a food chopper. Mix thoroughly, add enough breadcrumbs to form into a roll. Bake twenty minutes, basting occasionally with water and butter. Serve with bacon gravy or tomato sauce.

Mock Fish.

- | | |
|----------------------------------|--------------------------------|
| 1 cupful pecan nut-meats | 1 tablespoonful minced parsley |
| 1 cupful black walnut-meats | 1 tablespoonful minced onion |
| 2 cupfuls cold boiled hominy | 1 well beaten egg |
| $\frac{1}{2}$ cupful breadcrumbs | Salt and pepper to taste |
| 2 hard-boiled eggs chopped fine | |

Grind nut-meats; mix with other ingredients. Bake in a buttered fish-mold one-half hour in a moderate oven. Garnish with lemon and parsley and serve with Hollandaise sauce or drawn butter.

Nut Scrapple

- | | |
|---------------------|-----------------------------|
| 2 cupfuls corn-meal | 1 tablespoonful salt |
| 1 cupful hominy | 2 cupfuls hickory-nut meats |

To the meal, hominy and salt add enough boiling water to cook thoroughly into a double boiler till thick as mush. Grind nut-meats and add to the other mixture as soon as it is done. Pour into a buttered shallow pan. When cold, slice and fry a golden brown in butter or hot fat.

Nut Loaf

- | | |
|------------------------------------|---------------------------------------|
| 1 cupful chopped nut-meats | 1 teaspoonful mushroom ketchup |
| 2 cupfuls breadcrumbs | $\frac{1}{2}$ teaspoonful onion juice |
| $\frac{1}{2}$ cupful hot water | $1\frac{1}{2}$ teaspoonfuls salt |
| $\frac{1}{2}$ cupful melted butter | $\frac{1}{4}$ teaspoonful pepper |
| 1 egg well beaten | |

Mix ingredients in order named adding more seasoning, if desired. Bake one hour in a moderate oven, covering the first half hour of the time. Baste every fifteen minutes with melted butter. Serve on a hot dish with brown sauce.

Nut and Potato Balls

- | | |
|--------------------------------|-----------------------------------|
| 2 cupfuls hot mashed potatoes | 2 tablespoonfuls butter (heaping) |
| 1 tablespoonful minced parsley | Salt, pepper and paprika to taste |
| 1 tablespoonful minced onion | |

Mix well; divide into equal portions. Shape into meat balls, open in the center, put in a few nut-meats. Bake on a buttered tin for fifteen minutes. Serve hot with any good sauce.

Escaloped Eggs and Celery

- | | |
|---|---------------------------------------|
| 4 hard boiled eggs chopped | 4 tablespoonfuls butter |
| 2 cupfuls diced cooked celery | 4 tablespoonfuls flour |
| 1 cupful celery stock | 1 teaspoonful salt |
| $\frac{3}{4}$ cupful buttered breadcrumbs | $\frac{1}{8}$ teaspoonful pepper |
| $1\frac{1}{2}$ cupful milk | $\frac{1}{8}$ teaspoonful onion juice |

Cut celery into dice. Simmer in water to cover till tender. Add one cupful of the liquid to the milk; blend flour, butter and seasonings and mix with the celery and liquid. Put a layer in a buttered baking-dish. Sprinkle over a layer of the eggs. Alternate till the dish is full. Cover with the crumbs and bake in a moderate oven till well-browned.

Cheese and Celery au Gratin

- | | |
|-------------------------------------|--------------------------------------|
| $\frac{3}{4}$ cupfuls grated cheese | 2 tablespoonfuls butter |
| 2 cupfuls diced celery | 1 cupful rich milk or cream |
| 2 cupfuls water | $\frac{3}{4}$ cupful buttered crumbs |
| 2 tablespoonfuls flour | Salt and pepper to taste |

Cook celery in water till tender; add one cup of the water off celery to the milk. Blend the butter and flour, add liquid gradually. Boil up once; add seasoning and celery. Fill a buttered baking-dish with alternate layers of above mixture and cheese. Put in the oven to brown.

Turkish Eggs

- | | |
|------------------------------|--|
| 3 tablespoonfuls cooked rice | $\frac{1}{2}$ teaspoonful Worcestershire |
| 2 tablespoonfuls tomatoes | Parsley, celery, onions, breadcrumbs |
| 1 poached egg | |

Shape rice into a flat, round cake. On top put tomatoes, stewed with a bit of celery, onion and a few breadcrumbs. On top of that place a poached egg. Add Worcestershire to the eggs. Garnish with parsley and serve with toast. (Individual service).

Breaded Eggs

- | | |
|--------------------------------|--------------------------|
| 3 cold hard boiled eggs sliced | Pepper and salt to taste |
| 1 well beaten egg | Parsley, tomato sauce |

Dip each slice of egg into beaten egg and then into seasoned crumbs. Let stand in a cold place for one hour. Fry a golden brown in deep hot fat. Garnish with parsley. Serve with tomato sauce.

USE OF "TRIMMINGS," FAT AND DRIPPINGS

There is an old adage "Look out for the pennies—the dollars will take care of themselves." Look out for the "small" items of waste and you will find, too, that it will mean dollars in your pocket.

One of those small (?) items is the matter of "trimmings" from your meats. Don't let timidity get ahead of common sense. If it requires nerve to ask your butcher for what belongs to you, the trimmings (which, by the way, *he* has the nerve to resell for from 6 to 8 cents per pound), then by all means acquire the "*nerve*." It will just mean a saving of about \$50 yearly in the average home. "Small" item?

Here are some practical suggestions of what to do with "trimmings": If much meat is used, it is necessary to provide a small crock with lid for each kind of fat, i. e. one for bacon, beef, chicken, ham, lamb, etc. Keep covered in a cool place. The fat of mutton cannot be used for cooking but it is good for chapped hands and such purposes. Bacon fat lends itself best to general use but chicken fat is a good substitute for butter or olive oil, the pork and ham fine for beans and beef, and lamb for deep fat frying, although beef fat can be used in other ways also. Ice-cold bacon fat properly rendered and clarified may be used for pie or bread, or devil's food, molasses or spice cake.

How to "render" or "clarify." In other words, how to get the trimmings and drippings ready for use. The trimmings of fat may be allowed to accumulate for two or three days in summer and in winter for as long as a week at a time. Then cut them up in small pieces and place in a skillet over the fire and allow to fry slowly till all grease is extracted from the bits of fat. Stir occasionally and keep well covered. Add any drippings or cakes of fat saved from the top of meat-liquor and as soon as all are melted remove from the fire to cool.

To clarify. As soon as the grease is cool—but not cold—pour through a double thickness of cheese cloth, or one thickness of cloth laid in the bottom of a fine sieve, replace on the stove and cook in it a raw potato. When the potato is browned well, remove and pour fat into the vessel prepared for it. It is then ready to use and is wholesome and sweet. All fats will become rancid if kept too long without re-heating, the weather determining largely how long they will keep sweet. Burn the cheesecloths and when a crock gets empty, be sure to scald it out well before beginning a new "batch."

Any fats not suitable for cooking purposes may be rendered and used for making the best of soft soap.

One year's fair trial of using fats, trimmings and drippings as recommended will be enough to convince any housewife that it pays.

USE OF LEFT-OVERS

INTRODUCTION

Even the housekeeper far above the average has her troubles in dealing with left-overs. The time to begin planning what to do with left-overs is when buying the food. To attempt to treat this subject in *full* would require more space than can possibly be given here but for the benefit of all we offer some plain, practical helps which will go far toward solving problematic left-overs.

The first thing to learn is to *throw nothing away*, not even a crumb of bread. A use can be found for practically everything. The careful, conscientious housewife does not buy fresh materials when the ice-box displays a collection of odds and ends of food, even if it does look discouraging. Cooked foods are not the only left-overs that must be looked after. At the end of the week, despite careful buying and planning, there is always a small quantity of various things left, such as, a few potatoes, a handful of rice, one or two onions, etc. No two households are apt to

have the same things left on hand, but a little thought will result in utilizing a number of these foods, which are frequently thrown away for no better reason than that there was "only a little dab of it, anyway."

What to do with Stale Bread. The rapidity with which stale bread accumulates is a source of worry and alarm to more than one good housewife. In many homes little thought is given to its use, and bread is deliberately thrown out without a qualm. In other homes, well-meaning mothers, in their effort to be saving, all too frequently convert stale bread into puddings which are unwholesome and expensive.

Intelligent watch over the bread-box is necessary to keep the waste within bounds. There should always be a supply of bread crumbs on hand and the best way to prepare them is to run the stale bread through a food-chopper, using the finest blade. Put the crumbs in a glass jar and they are ready for use. These crumbs may be used in escalloped dishes or for "dressing," for thickening tomatoes, or for rolling croquettes, etc. in for frying, and numerous other ways.

Some special uses to be recommended are the following ones:

1. Hot Bread Cakes

1½ cupfuls stale breadcrumbs	½ cupful flour
1½ cupfuls hot milk	½ teaspoonful salt
2 tablespoonfuls butter	4 teaspoonfuls baking-powder
2 eggs, well beaten	

Mix milk and butter and pour over crumbs. Add eggs and mix thoroughly, then sift in dry ingredients. Drop by spoonfuls on a hot well-greased griddle. Brown well on both sides. Serve with butter and syrup.

Brown Bread

2 cupfuls stale bread crumbs	2 teaspoonfuls salt
1½ pt. cold water	3½ teaspoonfuls soda
1¼ cupfuls molasses	1¾ cupfuls cold water
1½ cupfuls each of Graham flour, cornmeal and rye meal	

Soak bread in the pint and half of cold water over night. Rub through a sieve and add molasses and other ingredients in order named. Steam for three hours.

3. Tip Top Omelet

3 eggs	½ cupful milk
1 cupful bread crumbs	1 tablespoonful butter
	Salt and pepper to taste

Boil the milk, add butter and mix with the crumbs. Add salt and pepper and yolks of the eggs well beaten. Stir in gently the whites of the eggs stiffly beaten. Melt butter in frying pan and pour in mixture and brown.

4. English Monkey on Toast

1 cupful breadcrumbs	1 tablespoonful butter
1 cupful milk	Salt, pepper and paprika to taste
1 egg	6 pieces of buttered toast
½ cupful cream cheese	¼ lb. lettuce

Soak crumbs in milk. Melt the cheese in the butter, add the bread and milk and egg well beaten with seasonings to taste. Cook till creamy and serve on lettuce leaves on the buttered toast or crackers.

What to do with Sour Milk

Sour milk should not be allowed to go to waste. It is nourishing and can be utilized in many ways. Many recipes are improved by substituting sour milk and soda for sweet milk and baking-powder. Pancakes, corn bread, gingerbread, devil's food cake, waffles and biscuits are only a few of the good things to be cited for example.

Queen Bonny

This dish is in perfection in the summer, when milk sours quickly. Pour the milk before it has soured into a pretty glass dish. Allow the milk to settle into a firm "bonny clabber," as the Scotch say. Set on ice for an hour or two before serving. It may be served plain or with maple sugar or nutmeg sprinkled on top. This is delicious for supper.

Cottage Cheese

Set a pan of clabber in a slightly hot oven. As soon as the whey and curd separate, pour into a cheese-cloth bag and drain. Do not squeeze the bag. When well drained, empty into a dish and set in the refrigerator till serving time. It may be served mixed with salt, pepper and sweet or sour cream, or seasoned and made into small balls to be served with the salad course. Another pleasing variation is to line some wet molds with the cheese, fill with Waldorf salad, turn out on lettuce leaves and serve with French dressing.

Southern Crumb Pie Filling

1 cup stale breadcrumbs	$\frac{1}{2}$ tablespoonful butter
$\frac{1}{2}$ cupful hot water	3 tablespoonfuls brown sugar
$\frac{1}{2}$ cupful cold water	$\frac{1}{2}$ teaspoonful grated nutmeg
1 tablespoonful vinegar	

Soak crumbs in hot water till all are wet. Add the other ingredients well mixed and turn into pie-crust. Cover with strips of pastry laid on latticewise.

Sour Cream Dressing

$\frac{3}{4}$ cupful sour cream	$\frac{1}{2}$ teaspoonful salt
$\frac{1}{2}$ cupful mild vinegar	1 pimento chopped fine
1 tablespoonful sugar	

Mix well, chill and serve with plain, shredded lettuce. This is simple but delicious.

Sour Cream Pie

1 cupful sour cream	1 cupful raisins chopped fine
4 eggs	$\frac{1}{2}$ teaspoonful cloves
1 cupful sugar	4 tablespoonfuls powdered sugar

Add the sugar, raisins, cream and cloves to the well beaten egg yolks. Cook in a double boiler till creamy. Pour into a baked pie-crust and place in the oven till set. Beat the egg whites till stiff. Add gradually the powdered sugar and cover the top of the pie with this meringue. Return to the oven and brown slightly. Served cold with cheese, this is most appetizing.

Sour Milk Pie

2 cupfuls sour milk	$\frac{1}{2}$ teaspoonful cinnamon
$\frac{1}{2}$ cupful raisins	2 teablespoonfuls molasses
$\frac{1}{2}$ cupful currants	1 tablespoonful melted butter
$\frac{1}{2}$ teaspoonful salt	

Mix together; pour into a crust-lined tin; place strips of pastry latticewise over the top and bake till crust is done. Serve hot.

Sour Milk Cake Filling

$\frac{1}{2}$ cupful sour cream	Yolks of two eggs well beaten
$\frac{1}{2}$ cupful sugar	$\frac{1}{4}$ teaspoonful vanilla
$\frac{1}{2}$ cupful chopped nut meats	

Mix sugar and cream together. Boil for five minutes. Add the rest of the ingredients. Boil in a double-boiler till thick and creamy enough to spread.

MEATS**Hash**

The numerous ways for using left-over meats, grants little excuse for throwing any away, however small the scraps may be.

1 cupful chopped cold meat—any kind	2 cupfuls chopped cold boiled potatoes
—free from fat or gristle	1 onion chopped very fine
	Salt, pepper and flour

Mix, season and place in a small dripping pan. Dredge with a little flour; pour in at the side of the pan enough water to come up level with the hash. Do not stir. Bake in a moderate oven uncovered till the flour has formed a slightly browned sort of crust. Add a lump of butter, stir it through several times just before serving. This is not "boarding-house hash," but hash "like Mother used to make." It is delicious.

Lancastershire Meat Pie

1 cupful chopped cold beef or veal	1 minced onion
2 cupfuls hot freshly mashed potatoes	
seasoned as for table	

Mix meat and onion; season to taste. Put alternate layers of meat and potatoes in a shallow baking-dish. Dot with bits of butter and bake till nicely browned.

Savory Meat Rolls

1 cupful finely chopped, cold cooked ham, beef or chicken	2 cupfuls flour
$\frac{1}{4}$ cupful breadcrumbs	1 teaspoonful baking powder
1 egg well beaten	$\frac{1}{2}$ teaspoonful salt
Salt and pepper	1 heaping tablespoonful shortening
	1 tablespoonful milk

Mix meat, crumbs, egg and seasonings (crumbs and egg may be omitted by using gravy to moisten meat instead.) Shape into small rolls. Make a short dough of the other ingredients; roll thin. Cut into strips and cover each roll of meat with a strip of dough, being careful to cover the meat completely and to keep the rolls uniform in size and regular in shape. Bake in a quick oven. Serve hot for breakfast, dinner or supper.

Salmon Timbales

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|---|-----------------------------|
| 1 cupful left-over salmon (or other fish) | Salt, paprika |
| 1½ cupfuls white sauce | 1 tablespoonful lemon juice |
| ½ cupful breadcrumbs | |

Heat the salmon and sauce, add the yolks of the eggs and other ingredients. Beat the whites of the eggs stiff. Add to the fish mixture, folding in lightly. Bake in individual moulds for twenty minutes. Serve hot with white sauce; garnish with lemon.

Breaded Mutton

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|---------------------------|----------------------|
| 6 thin slices cold mutton | Breadcrumbs |
| 1 egg well beaten | 1 tablespoonful milk |

Dip each slice of meat in the egg and crumbs and fry in deep fat.

Scalloped Chicken or Turkey

- | | |
|--|-----------------------------|
| 2 cupfuls cold, roasted or boiled fowl | 1 heaping teaspoonful flour |
| 1 cup gravy or stock or milk | Pepper and salt to taste |
| 1 heaping teaspoonful butter | |

Melt the butter, add the flour. Cook till creamy, add the meat and if too thick pour in a little more milk. Sprinkle a buttered baking-dish with crumbs, pour in the mixture. Cover with a thick layer of crumbs, dot with butter and bake for twenty minutes in a moderate oven. Serve at once.

Ham Patties

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|--|---|
| 2 cupfuls cold cooked ham chopped fine | 3 cupsful breadcrumbs |
| 3 beaten eggs | Sweet milk enough to make a soft batter |

Mix well, drop into gem pans, dot with butter and bake till browned.

Mock Veal Cutlets

- | | |
|-------------------------------|-------------------------------------|
| 3 cupfuls cold minced veal | Season with salt, pepper and butter |
| 3 cupfuls cold boiled rice | 1 egg well beaten |
| ½ cupful stock, water or milk | 1 tablespoonful milk |
| 1 small onion minced | Breadcrumbs |

Mix meat, rice and stock, onion and seasonings. Shape like cutlets, roll in beaten egg, diluted with milk and dip in crumbs. Fry in deep fat to a golden brown.

Croquettes

Take 1 lb. finely chopped meat any kind. Season with salt, pepper, lemon juice, and ½ teaspoonful onion juice. Break an egg into a cup, then fill the cup with cream or stock. Mix all together. Shape into small cones. Roll in egg and crumbs and fry in deep fat.

VEGETABLES AND OTHER LEFT-OVERS.**Bean Loaf**

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|--------------------------|--------------------------|
| 1 cupful cooked beans | 1½ cupfuls crumbs |
| 1 cupful cooked tomatoes | Salt and pepper to taste |
| 1 cupful cream | |

Mash the beans fine. Add the other ingredients, mixing thoroughly. Bake for one hour in a buttered pudding-dish in a moderate oven. Serve cold in slices.

Left-Over Oatmeal Pudding

2 cupfuls left-over oatmeal	1½ cupfuls milk
½ cupful breadcrumbs	1 cupful sugar
½ cupful chopped raisins	2 eggs well beaten
1 cupful chopped apple	Pinch of salt

Mix well. Bake in a buttered pan twenty minutes in a moderate oven. Serve plain or with sauce or cream.

Vegetable Hash

Chop left-over vegetables—any on hand—such as potatoes, cabbage, parsnips or turnips, and season to taste. Put a tablespoonful (more or less according to the amount of vegetables) of butter or drippings in a frying pan. When hot, drop in the mixed vegetables. Sprinkle flour over the top of mixture. Then add a tablespoonful of boiling water. Cover quickly to keep in the steam. When heated thoroughly, take off cover and stir through several times. Serve hot in a hot dish.

Orange Peel Novelties

Do not throw away orange peel. Wash and scrape the white skin from the peel; then cut length wise into narrow strips. Cover well with cold water, bring slowly to the boil and boil for twenty minutes. Drain. Repeat this twice. Make a syrup of 1-3 as much water as sugar, put the peel in and boil till syrup spins a thread. Roll each piece in granulated sugar.

Left-Over Vegetable Salad

This salad may be made of left-over cooked carrots, turnips and beets. Cut the vegetables in small pieces, mix with chopped celery. Dress with French dressing. This is appropriate to serve with cold meats.

Sweet Potatoes—Left-Overs

2 cupfuls sliced crosswise sweet potatoes	2 tablespoonfuls mild vinegar
—boiled or baked	2 tablespoonfuls brown sugar
3 tablespoonfuls butter	

Heat the butter in a small baking-dish. Drop the potatoes in. Stir gently till all are coated with the butter. Sprinkle the sugar over the top and pour the vinegar over lightly. Bake uncovered until a golden brown.

Left-Over Hard Boiled Eggs

Remove the shells. Cut whites lengthwise in eighths. Arrange on a bed of lettuce in the shape of a daisy, using the yolks for the center of the flower and the whites for the petals. Serve with French dressing. If the yolks are creamed with a bit of butter and cheese and seasoned, then formed into balls for the center, they are very delectable.

Soups and Gravies

Good soups furnish appetizing nourishment as well as an excellent means for disposing of left-overs. They can be supplied at little, if any, additional cost. So, also, can good gravy. The economical housewife should master the art of making both. It is simple and easy and worth while.

The "middle class" people are prone to hold soups in contempt but are excessively fond of gravys, which is, all too frequently, just another word for grease.

The foundation for soups and gravies is "stock," which is the liquid in which

meat, bones or vegetables have been cooked. The stock kettle may be kept on the back of the stove to receive the bones, bits of meat too small to be used otherwise, gristle, odds and ends of vegetables and the water most vegetables are cooked in—macaroni, rice, potatoes and turnips, for example. Even a cold fried egg may be chopped up and put into the soup pot. Everything put in must be fresh.

At the end of the day remove from the fire, turn into a crock. Let stand till the fat rises to the top. Remove the cake of fat, reheat the stock, which will likely have settled into a firm jelly. Strain through a fine soup-sieve and your "stock" is ready to use. Stock from fresh meat and vegetables is made in the same way. Cold water should be used, a little salt to help extract the substances, and the stock allowed to cook slowly for hours. Use an iron pot but do not allow the stock to cool in it. "Stock" with vegetables in, sours more quickly than meat stock. In summer cook the vegetables separately and add when you go to use the stock. Stock left over must be boiled each day.

An endless variety of soups, broths, purées and gravies can be made from this stock. Once this basis of all soup-making is understood the rest is easy.

The secret of good gravy lies in having it well-cooked and free from greasiness. This may be insured by removing all fat from the stock used for gravy and using browned flour to thicken with. The gravy will then require little cooking and be digestible and appetizing. Less butter will be needed for table use, if good gravy is served. To brown flour, put a quart of it in a pan; set it in the oven or on top of the stove. Stir often till it is lightly browned all through. Keep some of this on hand all the time. Gravies require rapid cooking and plenty of stirring.

ECONOMICAL HELPS

The thoughtful housewife will learn how to turn everything to good account in cutting down the cost of living. The judicious use of canned goods, brown sugar, dried fruits and fish, macaroni and hominy are only a few of the many aids to be mentioned. Rice and the economical possibilities of home-made bread deserve especial attention, however.

Rice

It is a well-known fact that rice forms the chief article of diet of both the Chinese and the Japanese. Yet it is claimed that, if the Orientals fed on the rice used in this country, they would starve. Orientals use rice only in its natural or unpolished form. We, of America, demand the polished because it is "prettier to the eye," so the millers claim. The difference in the food value of polished and unpolished rice may be seen by the following table.

	Proteid	Fat	Sugar	Starch
Polished Rice	7.79	.28	.73	79.61
Unpolished	8.33	1.65	.69	76.74

The unpolished rice is not only almost twice as nourishing but just about half as expensive. Need anything further be said here to prove the superiority of the unpolished rice over the polished?

Something further *does* need to be said, though, regarding the peculiar merits of rice, which deserves its increasing popularity. Rice ranks next to milk in food value. Being rich in carbohydrates, it is well-adapted for the workingman's bill of fare; being easy to digest (boiled rice is digested in one-half the length of time it takes for milk) it is especially valuable for infants and invalids, particularly those with weak stomachs; being freer from alkaline salts than any other food, it is very efficient in cases of Bright's Disease (as it does not overtax the kidneys) as well as in auto-intoxication. As an eminent authority puts it "Rice, properly cooked, is digested without difficulty by the stomach and holds healing in its soft starches and mild albuminoids, poulticing pain and coating sore surfaces."

Properly cooked—"Aye, there's the rub!" This same authority has well said that "rice, as a rule, suffers more in the clutches of the average American cook than any other vegetable." The pasty mess, stiff enough to stand alone, or so watery as to look like coarse and ill-made starch, which figures as boiled rice" deserves the contempt in which it is held by those so imposed upon. It is in those homes where rice puddings are counted as "cheap and fillin'" and rice never appears on the table in any other form, although its rightful place is to accompany meat and gravy or go to make up a valuable meat substitute.

It is evident then that the housewife should know how to prepare properly.

Plain Boiled Rice—No. 1

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|-------------------------------------|---------------------|
| 1 cupful unpolished rice | 2 teaspoonfuls salt |
| 2 qts. boiling water (or even more) | |

Wash the rice in at least four waters and drain. Put the salt in the water which must be boiling at a gallop when the rice goes in, and must continue to boil rapidly till the rice is done, which should be at the end of twenty minutes. Do not stir with a spoon while cooking. When done drain thoroughly (the water drained off should be saved to use in soups, etc.). Toss rice lightly into a heated colander and set in the oven for a few minutes to dry. Each grain should stand out proudly by itself. Serve in a hot, open dish and eat with butter, salt and pepper or gravy.

Boiled Rice—No. 2

- | | |
|----------------------------|--------------------|
| 1 cupful rice (unpolished) | 1 teaspoonful salt |
| 1 qt. boiling water | |

Proceed as in No. 1. When rice is done, the water will all be absorbed. A tablespoonful of butter, three tablespoonfuls of grated cheese and salt and pepper to taste may be added just before sending to the table or the rice may be left plain and eaten with cream and sugar.

Rice lends itself to numberless variations, but the secret of success in all recipes lies in the boiling. So do not forget, *never* put rice on to cook in cold water, always allow from a quart to a gallon of water in which to cook one cup of well-washed rice, and allow one teaspoonful of salt to each quart of water, and boil furiously from start to finish, if you would not serve a "pasty mess."

Bread

"Weight for weight bread contains more food than meat" (see lesson on bread in Standard Reference Work) was not said of baker's bread. Even though home-made bread costs equally as much as baker's, (not including the work of the housewife) it is the more economical because it is *far* ahead in nutrition, to say nothing of the difference in the taste.

However, with wheat and flour soaring in prices it is expedient for us to examine ourselves and see if we are among the numbers whom our leading chemists rightfully dub "extravagant." If white flour is being used we are. True economy, as has been said before, lies in securing the greatest food value for the amount of money spent.

We must know something then about flour. Most flour, nowadays, is, like rice, designed "to please the eye of the consumer," who, owing to a lack of "flour knowledge," believes that the whiter the flour, the better, while in reality the whiter the flour, the less its strength-giving properties. Whole wheat flour is superior to white by the same principle which makes unpolished rice excel the polished.

Rye flour is equally as nourishing as wheat flour and costs from \$1.50 to \$2 less per barrel, while oatmeal, which makes a most delicious bread is even cheaper and more nutritious still. Cornmeal is not to be despised. It is wholesome and not much more than half as expensive as wheat flour.

FLEDA V. FINNELL

THE RURAL SCHOOL

INTRODUCTION

When we think of all the good work that has been accomplished in a country school and of the many illustrious men and women who received their first lessons there, we are not in much danger of overestimating its advantages. The country school is the training school of the nation. Out of it have come not only the great bulk of representative citizens but also not a few of the leaders. This may be due partly to the fact that half a century ago only the elect could go to college, so the country school was the university of the people. Doubtless, too, it is due to the peculiar advantage it offers. In no other class of schools is the idea of family life so nearly carried out. Here we have the big brother or sister keeping guard over the little ones. The younger pupils gain much from this association with the older ones, and these in turn are helped through the assistance they give to those in the lower classes. Intimate acquaintance with the teacher and with each other stirs emulation, and the self-sacrifice that even an elementary education often necessitates calls for the earnest expenditure of time and brains.

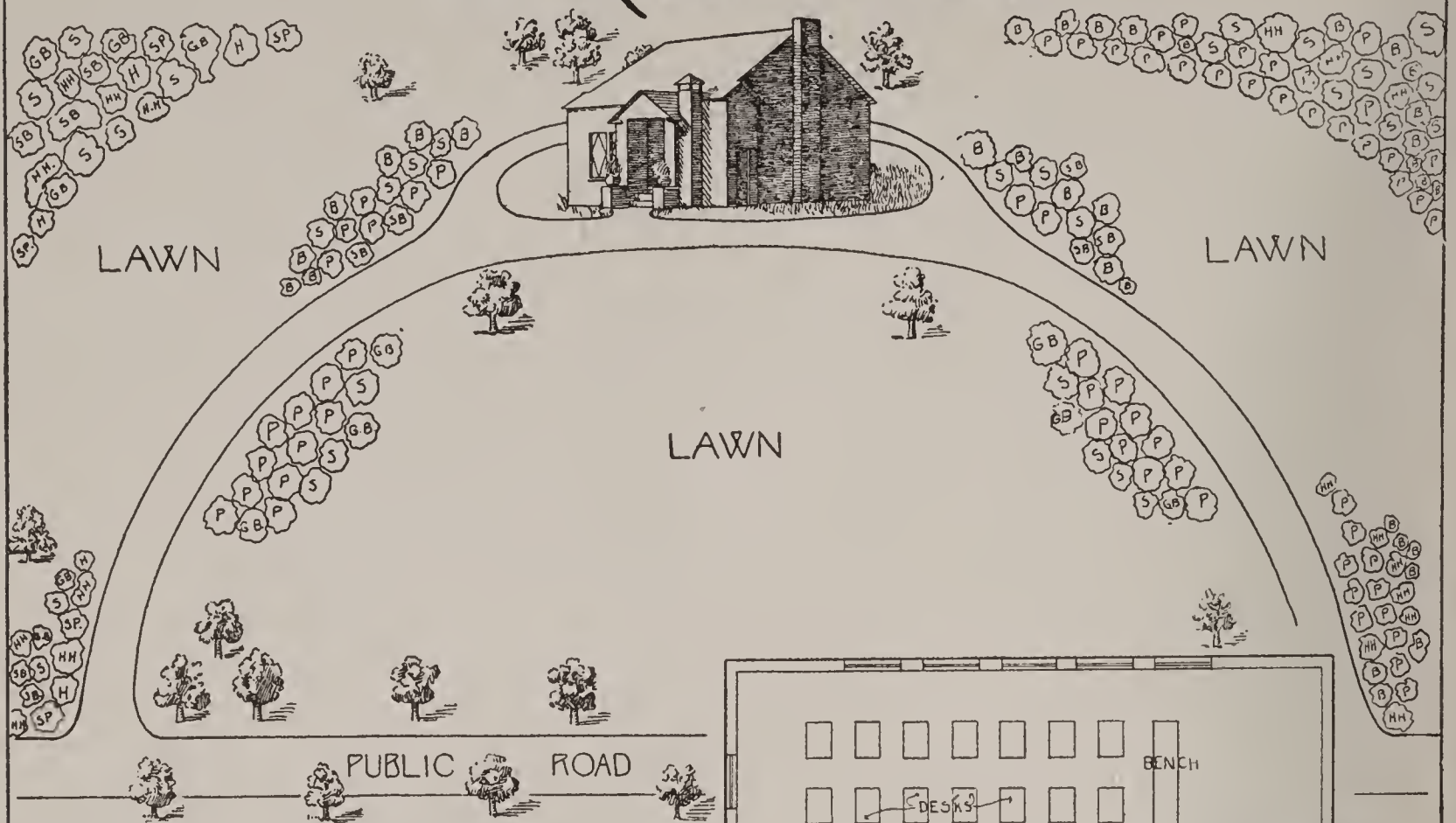
From the point of view of the teacher, the variety in ages and work lends novelty to life and keeps from getting into a rut. There is constant opportunity for being a part of the life of the community—such as the city teacher knows nothing about. Moreover, many rural teachers are receiving good salaries, and country life is becoming more and more attractive. As to the importance of the work there can be no question when we consider that 95 per cent of country school children go no further. The best teachers with the best training and the best buildings fully equipped are none too good for the country; and the people in rural districts cannot invest too much in the training of their children nor be too cautious in the selection of a teacher.

THE SCHOOL

LOCATION. The selection of the site for a schoolhouse is of the greatest importance. It should be located on dry ground where good drinking water can be obtained easily and where the soil is suited to the growth of hardy trees. Furthermore, it should be near a good road and where it is easily accessible by the majority of children. If possible the schoolhouse should be away from loud noises, such as are made by railroads, mills, etc. Moreover, the new interest in agriculture is demanding that it be situated on soil suitable for a vegetable or flower garden. A pleasant slope with a background of trees is an excellent situation. It should be sheltered from the wind and the outlook should be pleasant.

PLAN. In planning a one-room country school the first consideration should be one that meets the requirements of a comfortable, sanitary, and convenient schoolhouse for the children. A number of new schoolhouses have met these requirements admirably. The exterior appearance is neat and attractive, suggesting a home as well as a school. The main room provides seats for thirty pupils, with a possible capacity of forty-five. Every door is within plain view of the teacher, as is also the playground. The walls are tinted in some restful shade, such as olive green, the ceiling being a light cream. Model schoolrooms of this description are about twenty-

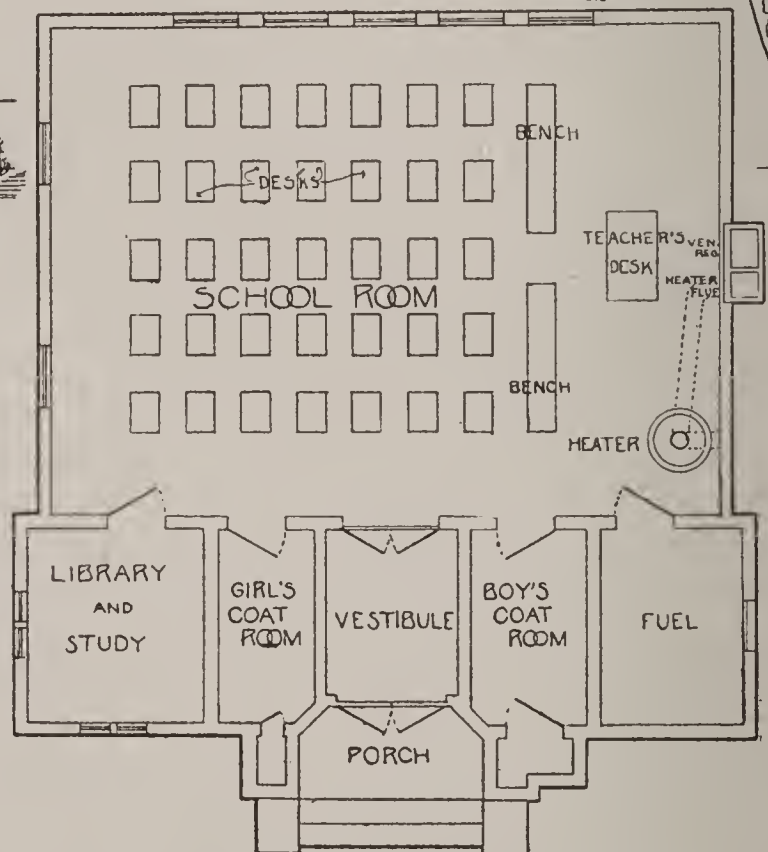
The Rural School



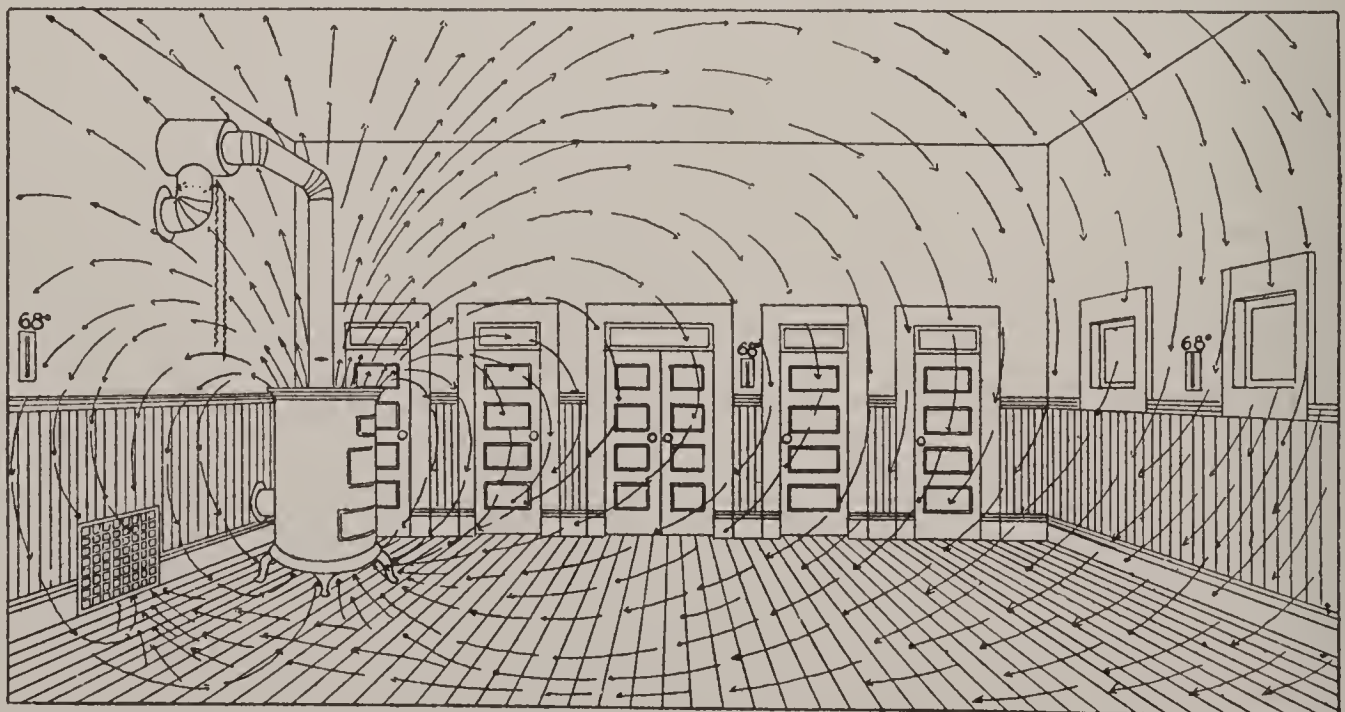
PLAN OF SCHOOL GROUNDS, INCLUDING WALKS, TREES, AND DETAIL OF SHRUBBERY

SB- Snowball.
S- Syringa.
P- Privet.
GB- Golden Bell.
SP- Spiraea.
HH- Hollyhock.
H- Hydrangea.
B- Barberry.

FLOOR PLAN OF BUILDING, SHOWING SUITABLE ARRANGEMENT FOR A ONE ROOM SCHOOL



A METHOD OF HEATING AND VENTILATING FOR SECURING FRESH AIR AND UNIFORM TEMPERATURE THROUGHOUT THE ROOM.



four feet wide by thirty-two feet long and thirteen feet high, thus providing about 285 cubic feet of air space for each of thirty-five pupils.

In addition to the main room, a good schoolhouse should have separate cloak rooms for boys and girls, large shelves where lunch pails may be kept, strong hooks well fashioned, and racks for rubbers and umbrellas. Good ventilation of these rooms may be secured by having transoms over the doors and an air space below them. The entrance to both should be from the main room and in view of the teacher.

The library room is one of the most useful parts of a country school. It should be supplied with good bookcases, a large table, and chairs enough for several pupils. Besides, it can be made useful in many ways as a reading and reference room. The little children may move about here without disturbing the older classes, and here upper classes may be conducted, especially when the work calls for the use of library books; and often, when the main schoolroom is used for some other purpose, it is convenient to lock books away in the library until the next morning. A couch for use in cases of illness is an excellent addition. Many of the new country schoolhouses are provided with fuel rooms on the same level as the main room, instead of in the basement as formerly. These are lined with heavy planks and building paper to prevent the escape of dust. The advantages of such an arrangement are obvious and the expense, if the fuel room is arranged for in the original plan, is less than the cost of a separate shed.

FURNISHINGS AND EQUIPMENT

SEATING. The room should be provided with seats varying in size with the ages and sizes of the children. This is not only an aid to good order but is absolutely essential to the physical well-being of the pupils. In some of the older schools seats were arranged so that all the smallest ones were in front and the largest at the back. A better way is to let the seats in one row from front to back be of one size, as this takes away the necessity of putting a large desk back of a small one.

LIGHTING. There should be abundance of light, coming from the north when possible, and at the left of the children. The windows should be curtained with green shades, which should be hung so as to shut out light either from above or below as desired. If it is necessary to have windows in the rear of the room they should be placed so high that the light cannot cast a shadow on the pupil's work. It will thus be unnecessary to provide these windows with shades. In no case should the desks be so placed that the sun will shine into the eyes of the pupils. Nor should the blackboards be of such material or color as will cause a strain upon the eyes of the pupils.

HEATING AND VENTILATING. The ideal method of heating is, of course, a hot-water, steam, or hot-air furnace. But even when these are impossible the room can be kept comfortable by means of a stove. Various devices have recently been perfected by which the heated air is sent evenly over the whole room. One of these is what is known as the Smith system. A sheet-iron jacket having a circle of holes above, through which the heated air may come out, is placed around the stove. Near the floor the jacket communicates with a fresh-air pipe supplied from the outside. The principle is simple; the air being heated rises, escapes through the holes near the top of the jacket, and settles in the room near the walls. This starts another current toward the stove, which in turn passes under the jacket and is heated and rises. Thus the air is kept constantly in motion and is fresh and pure. There are many other ways, but this is simple and remarkably effective, for it insures the even distribution of air of a warm temperature and it does away with the necessity of opening windows for fresh air.

The foul or vitiated air is removed as shown in the illustration. It passes out of the chimney with the warm smoke from the stove. Sometimes this chimney is made with a double flue—one side being for smoke, the other for foul air.

MISCELLANEOUS FURNISHINGS. Among the most important are these: **A**

teacher's desk with drawers supplied with locks, a bookcase, a library for reference and circulation, text-books for the teacher's desk, dictionaries, a suitable encyclopedia, wall maps, a globe, dustpan, poker, fire shovel, waste basket, vessels and sticks for measuring, foot scraper, thermometer, a rain gauge, kindergarten materials for the little ones, a good clock, paper towels, a sweeping preparation or a vacuum cleaner for removing dust. The children should provide their own drinking cups. The choice and quality of blackboards should be given considerable attention. In general slate is considered best, though various substitutes are acceptable and easier to put up. The best blackboards are four feet high and placed thirty inches from the floor, being thus low enough for the smallest children. Blackboards should always be provided with chalk rails, and good crayons and erasers are further requisites. There should be a good well and separate privies for the sexes on the school grounds. The teacher should see that the privies are kept clean, are always in good order, are not defaced by scribbling, and, if possible, are screened by trellises and vines.

SCHOOLROOM DECORATION

From the standpoint of decoration the schoolroom should be made as pleasing as possible. Avoid sticking all sorts of articles on the walls, on shelves, or over the blackboard. One or two pictures large enough to be seen across the room, well framed and well hung, do more to make the room attractive than dozens of calendars and highly colored chromos. Pictures of educational value and inexpensive plaster casts are easy to get. The Perry Picture Company and the Prang Educational Company have excellent material, and P. P. Caproni & Co., Boston, make a specialty of casts suitable for schoolroom decoration.

It is an excellent plan for the teacher to have on hand several one-cent Perry pictures early in the year, for by talking about them to the children she can generate an interest which, if properly directed, will result in good pictures for the schoolroom. When once the children's tastes are developed, an entertainment, a lecture, or a basket supper furnishes the necessary means, and it is not too much to say that here the teacher has an opportunity for developing an esthetic sense that will later express itself in tastily arranged rooms and well chosen decorations. The study of great pictures offers a larger possibility for the cultivation of good taste than any other subject and, judged by its relation to life, it is more practical than many required by the course of study.

EXTERIOR IMPROVEMENT

The secret of keeping the older children interested in school lies largely in the character of the schoolhouse. And this applies not only to the interior but to the schoolyard as well. The practical difficulty seems to be a lack of public sentiment in regard to the beautifying of school property. In some counties, however, great progress has been made, largely by issuing bulletins and printed matter containing illustrations of all sorts of schoolyards. A second method has been the presentation of ways and means in teachers' institutes. In this connection O. J. Kern's *Among Country Schools* is a most interesting contribution. It tells in a fascinating way how he awakened a new interest in school agriculture and gives numerous practical suggestions. In this article only a few hints are possible:

1. Plant trees first, for they require a longer time for development. Determine what kinds grow best in the particular locality and soil. A good way to start interest is to have an Arbor Day program and to precede the planting with other forms of tree study. Set the trees out in irregular rows, bearing in mind chiefly their appearance as background and their value as wind-breaks. Leave openings wherever there is an open view of a pleasing stretch of country or good buildings. Some good varieties of trees are maple, oak, spruce, elm, and box elder.

2. Plant shrubbery next, especially the kinds that make good covering for

unsightly outbuildings or hard foundation lines. Vines, such as woodbines and creepers, are excellent for this purpose. Even vine-covered posts and fences give beautiful effects, though in general it is not well to cover woodwork, for vegetable growth is hard on paint and wood.

3. Next plant hardy perennials—hydrangeas, snowballs, rose bushes, lilacs—in general, those blossoming shrubs which we cherish chiefly for their beauty and fragrance. Arrange them in clusters or groups, never in straight lines. Be sure to leave the front of the schoolhouse in view from the road and to leave playgrounds bare except for surrounding hedges.

4. The Walks. In planning the walks first take into account permanent objects, such as trees and buildings. Determine next the main lines of travel leading to the schoolhouse and use these as a basis for the permanent walks. If the distances are short the walks should be straight.

5. Lawn. The grasses for the lawn will vary according to the soil in different localities—blue grass, white clover, bent grass, Bermuda grass, etc., make good lawns. The soil must be properly prepared for the grass and the lawn should be well kept. Some spots can be kept free from tramping, but in the main children should be allowed the freedom of the playground.

6. The School Garden. The idea of a school garden is practically new everywhere in rural communities, and in many localities it is still unfavorably received, for the old theory that children are sent to school to master the three R's is dying a hard death. In communities where parents and school officers fall in readily with the broader conception of education the problem is easy. When there is opposition the work must be approached with tact and carried on very slowly.

In the first place, the teacher must bear in mind that the point of view for the city child is different from that of a country school child. As a rule children in rural communities are familiar with the simple operations of the garden—preparing the soil, planting the seed, cultivating, and harvesting—whereas to city children the growth of the plant is like the discovery of a new world. Therefore, the plan should differ somewhat. Instead of planting tiny vegetable gardens it might be better by means of grasses to test different kinds of soils and methods of tillage, for this at once brings the country child face to face with the facts of chemistry and of scientific methods of experimentation. On the part of the teacher lessons like these will call for preparation, but much fine material on the subject has been published and most of it can be had for the asking. In many states considerable advance has been made in the scientific study of the growth of common grains—oats, barley, flax, etc. Corn has received the most attention. In some communities the study has progressed so far as to include chemical tests for the soil, minute analyses of crops, investigations and comparisons of corn crops in different countries and under different conditions, food value, rotation of crops, etc. In such districts there has been so much enthusiasm that the boys have planted gardens of their own and entered their crops in state and local contests.

Aside from the scientific and analytical features of the work there is the decorative side. Naturally the girls will take more interest in this feature of the work, for the study of flowers and plants used chiefly for beautifying appeals naturally to them. The following is a list of plants suitable for study and for schoolyard decoration: Castor bean, canna, coleus, geranium, coxcomb, larkspur, touch-me-not, zinnia, nasturtium, and California poppy. Most of these can be started in boxes indoors and set out as soon as the weather is favorable.

The setting out of a flower garden is a complex piece of work, involving special preparation of the soil, regard for sunlight, direction of the prevailing wind, depth of seed or sprout and, most of all, the appearance of the garden in the blossoming season. Curving lines, masses, and hedgelike arrangements are generally more pleasing than the conventional round or square bed.

QUALIFICATIONS OF THE TEACHER

1. It is almost superfluous to say that the rural school teacher should be in *good health*. In many ways her work is more trying and exacting than that of the city teacher. If she does not have a long walk to and from school she should get daily exercise in other ways. While she should by all means mingle in the social life of the community, she must have regular hours of rest and relaxation.

2. The rural school teacher must be a person of *good sense*, for often this quality stands her in stead when everything else fails. The country school, with its multitudinous problems and its unexpected situations, often calls for immediate action of a kind that training does not give, and nothing but the exercise of good sense will meet the difficulty.

3. She must have special *aptitude* for her work. And this means much, for without it the daily routine will be drudgery, and her power as a vital force in the school will be lost.

4. The teacher must be *agreeable*. A sullen, morose, fault-finding person never did successful teaching in a country school. A happy, optimistic temperament is absolutely necessary in a position where there is often much to discourage.

5. The teacher must have *sympathy and patience*. She must have an inborn love of children and their ways, or she can never be an inspiration and a power with them. She must sympathize with their sorrows, pains, disappointments, struggles—for only by entering into the situation from the child's point of view can she understand and lead him.

6. She must be a person of infinite *tact*, both in dealing with the children themselves and with their parents and school officers. A careful method of approach, a little diplomacy, patience, and good humor, often win the day.

7. Furthermore the teacher must be *firm*. An undecided, yielding, compromising teacher never holds the confidence of the pupils, for yielding to their wishes does not win the respect that firmness and determination receive. Make few rules, but hold to those that are made. Allow few exceptions, extend no favors, and keep all promises.

8. It is needless to add that the teacher should be a person of *superior scholarship*. She should come to her pupils from a higher plane and be conversant with many phases of the subjects which she expects to teach. In addition to academic training, a special knowledge of methods and pedagogy is an invaluable asset. In many of the best normal schools schedules are arranged so that teachers may take some of the best courses in the summertime. Aside from these, constant opportunity for self-improvement is offered by institutes, meetings, reading clubs, and teachers' journals; and the live teacher will avail herself of as many as possible of these means of development, for in teaching a country school standing still is death.

It is very necessary that the teacher should understand that the possession of superior scholarship does not mean being pedantic. The school costs money. It is not supported to give some teacher a salary or to keep pupils out of mischief. These are mere incidents. The object of the school is to enable the pupil to become a good citizen and to earn a good living. The teacher of superior scholarship, therefore, is the one who studies life as well as books and who is thus able to make the school accomplish the purposes for which it was organized.

ORGANIZATION OF A SCHOOL

I. SYSTEM

The first task of the teacher on beginning a new term is the organization of the school. This means registration and grouping of pupils, allotment of time and assignment of duties, provisions for recesses, and, in general, everything that per-

tains to the routine of the daily work. There must be a regular and systematic arrangement of classes in order that the school machinery may run smoothly and the required work be accomplished. (See your State Course of Study.)

II. THE LESSON

The teacher should make a careful study of the lesson before assigning it to the class. The assignment should be definite, the class being given some special task to accomplish. The test of the pupils' work in preparation is the recitation.

The test of the teacher's work and qualifications is ability to conduct the recitation properly so that every pupil in the class feels, when the recitation is over, that it has a specific purpose and that something has been accomplished. It is fatal to permit pupils to go to their desks with the idea that neither they nor the teacher knew what they were trying to do in the exercise just closed. It may be damaging for pupils to leave the recitation with the sense of failure. If, however, they are led to see that the failure is due to them—to their not making full use or the best use of their knowledge and their powers—and if they are inspired with the determination to win success, then the sense of failure may be beneficial. But never if it comes from the idea that the teacher did not know, or did not care, or had not made the preparation necessary to proper instruction.

Questions should be put precisely and in such a manner as to create interest and to bring out originality. After the testing comes the drill, or application of the lesson, and additional information from the teacher leading up to the next lesson. A lesson is not learned until it is assimilated and becomes a part of the pupil's mental storehouse. The good teacher will endeavor to stimulate her pupils to faithful and effective work and to independence of thought. Inspiration is just as much a part of the lesson as instruction.

III. ALTERNATION

This is a plan for diminishing the number of classes, thus enabling the teacher to accomplish the most work in a limited time. It is often desirable, especially in higher grades. The grades work together in the same class. The work of one grade is done in one year, while the other is omitted. The next year the work omitted is taken up and the first year's work dropped. This adds to the interest of the work, and is mutually helpful to the younger and the older pupils.

In the even numbered years there might be classes in the first, second, third, fifth, and seventh years in every study; in the fourth year in numbers only, and in the sixth and eighth years none at all. In the odd numbered years would be classes in the first, second, fourth, sixth, and eighth years in every study; in the third year in numbers only, and in the fifth and seventh years, no classes at all.

IV. MODEL PROGRAMS

Consult the pamphlet issued by Francis G. Blair, Superintendent of Public Instruction of Illinois. The pamphlet is entitled *The One-Room Country Schools in Illinois*. These programs are presented as being the best thing we have seen on this subject. We advise a careful study of them.

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